AGENDA
CHASKA CITY COUNCIL
CHASKA CITY HALL - COUNCIL CHAMBERS & ZOOM
Monday, April 18, 2022
7:00 PM

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Adopt Agenda
5. Visitor Presentation
6. Approve Previous Meeting Minutes
   - 6.A. Approve the April 4, 2022 City Council Meeting Minutes
7. Consent Items
   - 7.A. Adopt Resolution 2022-39, Approving MnDot Master Partnership Contract
   - 7.B. Adopt Resolution 2022-48, Approve Construction Plans for Downtown Chaska TH 41/CSAH 61and Authorize Solicitation for Bids
   - 7.C. Letter of Support Trunk Highway 5 State Legislation
   - 7.D. Adopt Resolution 2022-40, Recommend Approval of the Final Plat for Reserve at Autumn Woods/Lennar/PC #2022-12
   - 7.E. Adopt Resolution 2022-45, Approving the Lot Splits for the Kelzer and Chaska Investments Properties/DR Horton/PC #2022-24
   - 7.F. Adopt Resolution 2022-44, Approving the Preliminary Site & Building Plan for Southwest Christian High School/Southwest Christian/PC #2022-19
   - 7.G. 2022 Union Contracts – LELS Lieutenants and Teamsters

8. Action Items

    8.A. Adopt Resolution 2022-49, Public Hearing - 2022 Downtown Street Reconstruction Assessment Hearing

    8.B. Adopt Resolution 2022-47, Public Hearing to Consider Certification of Spring 2022 Delinquent Utilities

    8.C. Adopt Resolution 2022-41 and Ordinance 1014, Approving the Preliminary Site & Building Plan, Preliminary Plat and Rezoning for Cantissimo/Anasazi Holdings/PC #2022-01

    8.D. Adopt Resolution 2022-42 and Ordinance 1015, Approving the Preliminary Plat and Rezoning for Oak Creek/DR Horton/PC #2022-20

    8.E. Adopt Resolution 2022-43 and Ordinance 1016, Approving the Preliminary Site & Building Plan, Preliminary Plat, and Rezoning for Clover Ridge Apartments/AV Development/PC #2022-15

    8.F. Adopt Resolution 2022-46, Approving the Concept Plan of the North Water Treatment Plant

9. Bills

    9.A. ACCOUNTS PAYABLE COUNCIL ROSTER 4-18-2022

10. Other Business

    10.A. City Administrator's Report

        10.A.i. Biweekly Report for April 18, 2022

11. Adjourn

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- MINUTES -
CHASKA CITY COUNCIL
APRIL 4, 2022

1. Call to Order
The meeting was called to order by Mayor Windschitl at 7:01 pm.

2. Pledge of Allegiance

3. Roll Call
Roll call was taken. Present: Councilmembers Grau, Hubbard, Huang, and Mayor Windschitl

Absent: Councilmember Hatfield

Also Present: Matt Podhradsky, City Administrator; Noel Graczyk, Administrative Services Director; Kevin Wright, Communication Director; Elise Durbin, Assistant Administrator; Parks and Recreation Director Marshall Grange; Nate Kabat, Community Development Director; Liz Hanson, City Planner; City Attorney; City Engineer Matt Clark; and Water and Sewer Director Matt Haefner.

4. Adopt the Agenda
Motion by Councilmember Hubbard, second by Councilmember Grau to adopt the agenda as presented.
Motion carried.

5. Visitor Presentation
None.

6. Minutes
6.A. Approve March 7, 2022 City Council Meeting Minutes

6.B. Approve March 21, 2022 City Council Meeting Minutes
Motion by Councilmember Hubbard, second by Councilmember Huang to approve the minutes of the March 7, 2022 and March 21, 2022 City Council meetings.
Motion carried.

7. Consent Agenda
Motion by Councilmember Huang, second by Councilmember Grau to approve the Consent Agenda Items A through L:

A. Adopt Resolution 2022-34, Approving the Lot Split for 3985 Big Woods Boulevard/DR Horton/PC #2022-22

Motion to adopt Resolution 2022-34, approving the Lot Split on 3985 Big Woods Boulevard, subject to the stipulations included in said resolution and the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Lot Split, prepared by Westwood, dated March 15, 2022

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b. Driveway Easement, prepared by Westwood, dated March 15, 2022

B. Adopt Ordinance 1013, Amend & Reenact Ordinance 1012 Chapter 2, Article 8, Sections 10 and 20 of the Chaska MN Code of Ordinances – Ward Boundaries and Polling Locations

Motion to adopt Ordinance No. MC 2022-1013 to repeal error content and reenact Ordinance No. MC 2022-1012 chapter 2, article 8, sections 10 and 20 of the Chaska Minnesota Code of Ordinances.

C. Approve Transient Accommodation Renewals

Motion to approve the 2022-2023 transient accommodation licenses effective May 1, 2022 through April 30, 2023.

D. Adopt Resolution 2022-31, 2022 Overlay Program

Motion to approve Resolution No. 2022-31 awarding the bid for the 2022 Overlay Program to Northwest Asphalt in the low bid amount of $431,715.60.

E. Adopt Resolution 2022-32, Amending 2021 Fund Budgets

Motion to adopt Resolution 2022-32 Amending 2021 Fund Budgets.

F. Letter of Appreciation - Congressionally Directed Spending Southwest Chaska Sewer Extension

Motion to authorize the Mayor to sign a letter of appreciation for the Congressionally Directed Spending allocation for the Southwest Chaska Sewer Extension project.

G. Letters of Support - State Funding for Various County Projects

Motion to Authorize the Mayor to sign and forward the attached letters of support for various County projects within the City of Chaska.

H. Adopt Resolution 2022-35, Authorizing Bank Account Signers and Authorization of Electronic Funds Transfer

Motion to adopt Resolution 2022-35 Authorizing Bank Account Signers and Authorization of Electronic Funds Transfer.

I. Approve Establishing Budget for the Loop Clubhouse and Maintenance Building

Motion to establish the budget and authorize staff to go out for bid for construction of clubhouse and maintenance building.

J. Adopt Resolution 2022-36, Approving Construction Plans and Authorizing Bids for 2022 Downtown Street Reconstruction Project

Motion to adopt Resolution No. 2022-36, approving the construction documents for the 2022 Street & Utility Reconstruction Project, and authorizing the solicitation of public bids.

K. Adopt Resolution 2022-37, Award Bid for Creek Road Trunk Sewer Extension Street and Utility Improvements Phase 4

Motion to adopt Resolution 2022-37 , awarding the sanitary sewer and water main material bid for the Creek Road Trunk Sewer Extension Street and Utility Improvements Phase 4 to DSGWaterworks, in the low Base Bid plus Alternates 2 thru 5 and 7 thru 15 for a total of $431,932.62.

L. Adopt Resolution 2022-38, Easement Acquisition for Creek Road Trunk Sewer Extension Street & Utility Improvements

Motion to adopt Resolution No. 2022-38, authorizing City staff to send offer letters to the affected property owners for the Creek Road Trunk Sewer Extension Street and Utility Improvements Project.

Motion carried.

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8. Action Items

8.A. Adopt Resolution 2022-33, Public Hearing on Approval and Consent to Conduit Debt Issuance – Southwest Christian High School

City Administrator Podhradsky introduced this item. He explained that they are looking to refinance and even though the City is not financing or issuing any debt on this item they are making sure it is something the City is ok with having happen. He noted this is something the City has done in the past and they have actually provided conduit debt for certain projects as well.

Bond Counsel to the City Mr. Nathan Canova with Dorsey & Whitney, LLP stated the purpose of this item is to give the City the first right of refusal and for IRS purposes they have to hold a public hearing regarding this item.

Mayor Windschitl opened the public hearing at 7:38 pm.

No one wished to speak on this item.

Mayor Windschitl closed the public hearing at 7:39 pm.

Motion by Councilmember Hubbard, second by Councilmember Huang to Motion to adopt Resolution 2022-33 Giving Host Approval and Consenting to the Issuance of Educational Facilities Revenue Notes Under Minnesota Statutes, Sections 469.152 Through 469.165 (Southwest Christian High School Project).
Motion carried.

8.B. Chaska Water Tower Logo Discussion

City Administrator Podhradsky introduced this item. He stated the particular tower they are looking at is about 20 years old and is due for painting and with a new one being built soon, if the City wanted to make changes to their logo now would be the time to do so.

Water and Sewer Director Haefner provided some background and provided ideas for the Council to review.

Mayor Windschitl stated he likes that the renderings provide an image of what the lettering looks like in blue and black because he didn't realize how much better you can see the name in black. He noted he doesn't like having the City name all capitalized and likes the colored logo.

Councilmember Huang stated if they could paint them an off white it may help delay the rust showing through. He stated he likes the logo in the colors presented and doesn't like the font being in all caps. He noted it might be nice to add a page to the website that explains what the meaning is behind the logo.

Councilmember Grau stated he agrees it would be nice to have a place that explains what the logo means on their website.

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Councilmember Hubbard echoed the other Councilmembers and likes the logo being in color and doesn't like all letters being capitalized in the City name.

It was the consensus of the Council to have staff move forward with bidding to have the water towers be painted off-white with a colored logo and only capitalize the first letter of Chaska.

Water and Sewer Director Haefner stated they will get bidding started tomorrow now that they know what direction the Council wants to go.

9. Bills
9.A. Accounts Payable Council Roster 4-4-2022

Council requested further information on page 6, 11 and 17.

City Administrator Podhradsky provided further information regarding those bills.

Motion by Councilmember Huang, second by Councilmember Grau, to approve the bills as presented. Roll call was taken. Voting aye: Councilmembers Grau, Hubbard, Huang, and Mayor Windschitl. Voting nay: None.

10. Other Business
10.A. City Administrator's Report
10.A.i. Bi-Weekly Report April 4, 2022

10.B. Hawk Pride Recap

Councilmember Grau:
- Nothing to report at this time

Councilmember Huang:
- April 21st is the MSB Open house
- May 7th Jonathon Spring clean-up day
- May 14th Jonathon festival of Garage Sales
- May 11th Taste of Chaska
- July 29th River City Days
- Welcomed Pete Wyffels new City Electrical Director
- Stated Southwest Transit had the highest amount of rides ever on March 24th and noted they did a great job getting people where they were going on time
- Congratulated SouthWest Transits finance department for receiving an award for financial excellence from the Government Finance Association

Councilmember Hubbard:
- Stated the Bicycle Steering Committee will be putting up the Master Plan for public review soon, they are lining it up with the Taste of Chaska event increasing the chances of the community seeing it so they can offer input

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City Administrator Podhradsky:

- Stated they are having the second round of interviews for the 3 Fire Chief candidates tomorrow and April 6th
- Congratulated his Son, Will and his team for winning the National Championship for curling in the u18 division

Mayor Windschitl:

- Requested that staff act to get the realty companies to stop putting signs in the City park and to get the Santa and Snowman figures removed as well
- Noted GA has had a few town hall meetings regarding the gymnasium and is wondering what involvement the City has with that at this point
- Congratulated the finance department for the award of excellence
- Welcomed Pete Wyffels the new Electrical Director and noted his first day is tomorrow
- Stated April 18th is the next Council meeting

11. Adjourn

Motion by Councilmember Hubbard second by Mayor Windschitl to adjourn the meeting at 8:32 pm.
Motion carried.

REQUEST FOR ACTION
CHASKA CITY COUNCIL
4/18/2022

Subject: **MnDOT Master Partnership Contract**

Prepared By: Matt Clark, City Engineer

Background
Chaska routinely works with MnDOT on joint effort partnerships for improvements to the trunk highway and the municipal state aide transportation system. The attached Master Partnership Contract allows both MnDOT and the City to enter into a work share arrangement that provides both administrative and technical assistance on all facets of service provided by the department of transportation. Exhibit A included in the contract is a table outlining a number of the technical services that are available for City use. The Contract allows for MnDOT to invoice the City direct for any of the technical services and is a benefit to ensuring state standards are met with projects involving MnDOT.

Recommendation
Staff is recommending Council to authorize the execution of the MnDOT Master Partnership Contract.

CITY COUNCIL ACTION REQUESTED
Motion to approve Resolution No. 2022-39 to enter into the MnDot Master Partnership Contract

DEPARTMENT OF TRANSPORTATION

Metro State Aid
1500 County Road B2, Roseville, MN 55113

651-234-7773
sharon.lemay@state.mn.us

To: Local Agency

Date: April 15, 2022

RE: **Proposed Master Partnership Contract**

Attached is a copy of a proposed master partnership contract between the Minnesota Department of Transportation (Mn/DOT) and your Local Agency.

The Master Partnership Contract provides a framework for Mn/DOT and Local Agencies to provide services and payment to each other. A few MnDOT provided routine services are included in the contract—see Exhibit A-- but all other services require work orders describing costs and scope.

Kindly review the enclosed document and if acceptable, arrange to have it presented to your Council/Board for their approval and execution. Please provide signatures only under the **Local Government** heading.

Also required is a new resolution passed by the Council/Board authorizing its officials to sign and execute the agreement on its behalf. **(Only the named officials may sign the agreement: if anyone else signs in the named official's place, the agreement will not be executed.)**

Please return to me at sharon.lemay@state.mn.us. Please note that no work shall be performed by Mn/DOT personnel until the full execution of the agreement. After execution by Mn/DOT and other State officials, a copy of the agreement will be returned to you.

If you have any questions or require additional information, please feel free to contact me at 651-234-7773. If your local agency will not be executing this contract, please send me an email informing me of this so I can remove you from our list.

Thank You

Sharon LeMay, Metro State Aid

An Equal Opportunity Employer

MnDOT Contract Number: 1050136

STATE OF MINNESOTA
MASTER PARTNERSHIP CONTRACT

This master contract is between the State of Minnesota, acting through its Commissioner of Transportation in this contract referred to as the "State" and the Chaska City, acting through its City Council, in this contract referred to as the "Other Party."

Recitals

1. The parties are authorized to enter into this contract pursuant to Minnesota Statutes, §§15.061, 471.59 and 174.02.
2. Minn. Stat. § 161.20, subd. 2, authorizes the Commissioner of Transportation to make arrangements with and cooperate with any governmental authority for the purposes of constructing, maintaining and improving the trunk highway system.
3. Each party to this contract is a "road authority" as defined by Minn. Stat. §160.02, subd. 25.
4. Minn. Stat. § 161.39, subd. 1, authorizes a road authority to perform work for another road authority. Such work may include providing technical and engineering advice, assistance and supervision, surveying, preparing plans for the construction or reconstruction of roadways, and performing roadway maintenance.
5. Minn. Stat. §174.02, subd. 6, authorizes the Commissioner of Transportation to enter into contracts with other governmental entities for research and experimentation; for sharing facilities, equipment, staff, data, or other means of providing transportation-related services; or for other cooperative programs that promote efficiencies in providing governmental services, or that further development of innovation in transportation for the benefit of the citizens of Minnesota.
6. Each party wishes to occasionally purchase services from the other party, which the parties agree will enhance the efficiency of delivering governmental services at all levels. This Master Partnership Contract (MPC) provides a framework for the efficient handling of such requests. This MPC contains terms generally governing the relationship between the parties. When specific services are requested, the parties will (unless otherwise specified) enter into a "Work Order" contracts.
7. After the execution of this MPC, the parties may (but are not required to) enter into "Work Order" contracts. These Work Orders will specify the work to be done, timelines for completion, and compensation to be paid for the specific work.
8. The parties are entering into this MPC to establish terms that will govern all of the Work Orders subsequently issued under the authority of this Contract.

Contract

1. Term of Master Partnership Contract; Use of Work Order Contracts; Survival of Terms

1.1. **Effective Date**: This contract will be effective on July 1st, 2022, or upon the date last signed by all State officials as required under Minn. Stat. § 16C.05, subd. 2, whichever occurs last. The Other Party must not begin work under this Contract until ALL required signatures have been obtained and the Other Party has been notified in writing to begin such work by the State's Authorized Representative.

1.2. **Expiration Date**. This Contract will expire on June 30, 2027.

1.3. **Exhibits**. Exhibit A is attached and incorporated into this agreement.

1.4. **Work Order Contracts**. A work order contract must be negotiated and executed (by both the State and the Other Party) for each particular engagement, except for Technical Services provided by the State to the Other Party as specified in Article 2. The work order contract must specify the detailed scope of work and deliverables for that project. A party must not begin work under a work order until the work order is fully

executed. The terms of this MPC will apply to all work orders contracts issued, unless specifically varied in the work order. The Other Party understands that this MPC is not a guarantee of any payments or work order assignments, and that payments will only be issued for work actually performed under fully-executed work orders.

1.5. **Survival of Terms**. The following clauses survive the expiration or cancellation of this master contract and all work order contracts: 12. Liability; 13. State Audits; 14. Government Data Practices and Intellectual Property; 17. Publicity; 18. Governing Law, Jurisdiction, and Venue; and 22. Data Disclosure. All terms of this MPC will survive with respect to any work order contract issued prior to the expiration date of the MPC.

1.6. **Sample Work Order**. A sample work order contract is available upon request from the State.

1.7. **Definition of "Providing Party" and "Requesting Party"**. For the purpose of assigning certain duties and obligations in the MPC to work order contracts, the following definitions will apply throughout the MPC. "Requesting Party" is defined as the party requesting the other party to perform work under a work order contract. "Providing Party" is defined as the party performing the scope of work under a work order contract.

2. Technical Services

2.1. Technical Services include repetitive low-cost services routinely performed by the State for the Other Party. If requested and authorized by the Other Party, these services may be performed by the State for the Other Party without the execution of a work order, as these services are provided in accordance with standardized practices and processes and do not require a detailed scope of work. Exhibit A – Table of Technical Services is attached.

2.1.1. Every other service not falling under the services listed in Exhibit A will require a work order contract (If you have questions regarding whether a service is covered under 2.1.1, please contact Contract Management).

2.2. The Other Party may request the State to perform Technical Services in an informal manner, such as by the use of email, a purchase order, or by delivering materials to a State lab and requesting testing. A request may be made via telephone, but will not be considered accepted unless acknowledged in writing by the State.

2.3. The State will promptly inform the Other Party if the State will be unable to perform the requested Technical Services. Otherwise, the State will perform the Technical Services in accordance with the State's normal processes and practices, including scheduling practices taking into account the availability of State staff and equipment.

2.4. **Payment Basis**. Unless otherwise agreed to by the parties prior to performance of the services, the State will charge the Other Party the State's then-current rate for performing the Technical Services. The then-current rate may include the State's normal and customary additives. The State will invoice the Other Party upon completion of the services, or at regular intervals not more than once monthly as agreed upon by the parties. The invoice will provide a summary of the Technical Services provided by the State during the invoice period.

3. Services Requiring a Work Order Contract

3.1. **Work Order Contracts**: A party may request the other party to perform any of the following services under individual work order contracts.

3.2. **Professional and Technical Services**. A party may provide professional and technical services upon the request of the other party. As defined by Minn. Stat. §16C.08, subd. 1, professional/technical services "means services that are intellectual in character, including consultation, analysis, evaluation, prediction, planning, programming, or recommendation; and result in the production of a report or completion of a task." Professional and technical services do not include providing supplies or materials except as incidental to performing such services. Professional and technical services include (by way of example and without limitation) cultural resources, engineering services, surveying, foundation recommendations and reports, environmental documentation, right-of-way assistance (such as performing appraisals or providing

relocation assistance, but excluding the exercise of the power of eminent domain), geometric layouts, final construction plans, graphic presentations, public relations, and facilitating open houses. A party will normally provide such services with its own personnel; however, a party's professional/technical services may also include hiring and managing outside consultants to perform work provided that a party itself provides active project management for the use of such outside consultants.

3.3. **Roadway Maintenance**. A party may provide roadway maintenance upon the request of the other party. Roadway maintenance does not include roadway reconstruction. This work may include but is not limited to snow removal, ditch spraying, roadside mowing, bituminous mill and overlay (only small projects), seal coat, bridge hits, major retaining wall failures, major drainage failures, and message painting. All services must be performed by an employee with sufficient skills, training, expertise or certification to perform such work, and work must be supervised by a qualified employee of the party performing the work.

3.4. **Construction Administration**. A party may administer roadway construction projects upon the request of the other party. Roadway construction includes (by way of example and without limitation) the construction, reconstruction, or rehabilitation of mainline, shoulder, median, pedestrian or bicycle pathway, lighting and signal systems, pavement mill and overlays, seal coating, guardrail installation, and channelization. These services may be performed by the Providing Party's own forces, or the Providing Party may administer outside contracts for such work. Construction administration may include letting and awarding construction contracts for such work (including state projects to be completed in conjunction with local projects). All contract administration services must be performed by an employee with sufficient skills, training, expertise or certification to perform such work.

3.5. **Emergency Services**. A party may provide aid upon request of the other party in the event of a man-made disaster, natural disaster or other act of God. Emergency services includes all those services as the parties mutually agree are necessary to plan for, prepare for, deal with, and recover from emergency situations. These services include, without limitation, planning, engineering, construction, maintenance, and removal and disposal services related to things such as road closures, traffic control, debris removal, flood protection and mitigation, sign repair, sandbag activities and general cleanup. Work will be performed by an employee with sufficient skills, training, expertise or certification to perform such work, and work must be supervised by a qualified employee of the party performing the work. If it is not feasible to have an executed work order prior to performance of the work, the parties will promptly confer to determine whether work may be commenced without a fully-executed work order in place. If work commences without a fully-executed work order, the parties will follow up with execution of a work order as soon as feasible.

3.6. When a need is identified, the State and the Other Party will discuss the proposed work and the resources needed to perform the work. If a party desires to perform such work, the parties will negotiate the specific and detailed work tasks and cost. The State will then prepare a work order contract. Generally, a work order contract will be limited to one specific project/engagement, although "on call" work orders may be prepared for certain types of services, especially for "Technical Services" items as identified section 2.1.. The work order will also identify specific deliverables required, and timeframes for completing work. A work order must be fully executed by the parties prior to work being commenced. The Other Party will not be paid for work performed prior to execution of a work order contract and authorization by the State.

4. Responsibilities of the Providing Party

4.1. **Terms Applicable to ALL Work Order Contracts**. The terms in this section 4.1 will apply to ALL work order contracts.

4.1.1. Each work order will identify an Authorized Representative for each party. Each party's authorized representative is responsible for administering the work order, and has the authority to make any decisions regarding the work, and to give and receive any notices required or permitted under this MPC or the work order.

4.1.2. The Providing Party will furnish and assign a publicly employed licensed engineer (Project Engineer), to be in responsible charge of the project(s) and to supervise and direct the work to be performed under each work order contract. For services not requiring an engineer, the Providing Party will

furnish and assign another responsible employee to be in charge of the project. The services of the Providing Party under a work order contract may not be otherwise assigned, sublet, or transferred unless approved in writing by the Requesting Party's authorized representative. This written consent will in no way relieve the Providing Party from its primary responsibility for the work.

4.1.3. If the Other Party is the Providing Party, the Project Engineer may request in writing specific engineering and/or technical services from the State, pursuant to Minn. Stat. Section 161.39. The work order Contract will require the Other Party to deposit payment in advance. The costs and expenses will include the current State additives and overhead rates, subject to adjustment based on actual direct costs that have been verified by audit.

4.1.4. Only the receipt of a fully executed work order contract authorizes the Providing Party to begin work on a project. Any and all effort, expenses, or actions taken by the Providing Party before the work order contract is fully executed are considered unauthorized and undertaken at the risk of non-payment.

4.1.5. In connection with the performance of this contract and any work orders issued, the Providing Agency will comply with all applicable Federal and State laws and regulations. When the Providing Party is authorized or permitted to award contracts in connection with any work order, the Providing Party will require and cause its contractors and subcontractors to comply with all Federal and State laws and regulations.

4.2. **Additional Terms for Roadway Maintenance**. The terms of section 4.1 and this section 4.2 will apply to all work orders for Roadway Maintenance.

4.2.1. Unless otherwise provided for by contract or work order, the Providing Party must obtain all permits and sanctions that may be required for the proper and lawful performance of the work.

4.2.2. The Providing Party must perform maintenance in accordance with MnDOT maintenance manuals, policies and operations.

4.2.3. The Providing Party must use State-approved materials, including (by way of example and without limitation), sign posts, sign sheeting, and de-icing and anti-icing chemicals.

4.3. **Additional Terms for Construction Administration**. The terms of section 4.1 and this section 4.3 will apply to all work order contracts for construction administration.

4.3.1. Contract(s) must be awarded to the lowest responsible bidder or best value proposer in accordance with state law.

4.3.2. Contractor(s) must be required to post payment and performance bonds in an amount equal to the contract amount. The Providing Party will take all necessary action to make claims against such bonds in the event of any default by the contractor.

4.3.3. Contractor(s) must be required to perform work in accordance with the latest edition of the Minnesota Department of Transportation Standard Specifications for Construction.

4.3.4. For work performed on State right-of-way, contractor(s) must be required to indemnify and hold the State harmless against any loss incurred with respect to the performance of the contracted work, and must be required to provide evidence of insurance coverage commensurate with project risk.

4.3.5. Contractor(s) must pay prevailing wages pursuant to applicable state and federal law.

4.3.6. Contractor(s) must comply with all applicable Federal, and State laws, ordinances and regulations, including but not limited to applicable human rights/anti-discrimination laws and laws concerning the participation of Disadvantaged Business Enterprises in federally-assisted contracts.

4.3.7. Unless otherwise agreed in a work order contract, each party will be responsible for providing rights of way, easement, and construction permits for its portion of the improvements. Each party will, upon the other's request, furnish copies of right of way certificates, easements, and construction permits.

4.3.8. The Providing Party may approve minor changes to the Requesting Party's portion of the project work if such changes do not increase the Requesting Party's cost obligation under the applicable work order contract.

4.3.9. The Providing Party will not approve any contractor claims for additional compensation without the Requesting Party's written approval, and the execution of a proper amendment to the applicable work order contract when necessary. The Other Party will tender the processing and defense of any such claims to the State upon the State's request.

4.3.10. The Other Party must coordinate all trunk highway work affecting any utilities with the State's Utilities Office.

4.3.11. The Providing Party must coordinate all necessary detours with the Requesting Party.

4.3.12. If the Other Party is the Providing Party, and there is work performed on the trunk highway right-of-way, the following will apply:

a. The Other Party will have a permit to perform the work on the trunk highway. The State may revoke this permit if the work is not being performed in a safe, proper and skillful manner, or if the contractor is violating the terms of any law, regulation, or permit applicable to the work. The State will have no liability to the Other Party, or its contractor, if work is suspended or stopped due to any such condition or concern.

b. The Other Party will require its contractor to conduct all traffic control in accordance with the Minnesota Manual on Uniform Traffic Control Devices.

c. The Other Party will require its contractor to comply with the terms of all permits issued for the project including, but not limited to, National Pollutant Discharge Elimination System (NPDES) and other environmental permits.

d. All improvements constructed on the State's right-of-way will become the property of the State.

5. Responsibilities of the Requesting Party

5.1. After authorizing the Providing Party to begin work, the Requesting Party will furnish any data or material in its possession relating to the project that may be of use to the Providing Party in performing the work.

5.2. All such data furnished to the Providing Party will remain the property of the Requesting Party and will be promptly returned upon the Requesting Party's request or upon the expiration or termination of this contract (subject to data retention requirements of the Minnesota Government Data Practices Act and other applicable law).

5.3. The Providing Party will analyze all such data furnished by the Requesting Party. If the Providing Party finds any such data to be incorrect or incomplete, the Providing Party will bring the facts to the attention of the Requesting Party before proceeding with the part of the project affected. The Providing Party will investigate the matter, and if it finds that such data is incorrect or incomplete, it will promptly determine a method for furnishing corrected data. Delay in furnishing data will not be considered justification for an adjustment in compensation.

5.4. The State will provide to the Other Party copies of any Trunk Highway fund clauses to be included in the bid solicitation and will provide any required Trunk Highway fund provisions to be included in the Proposal for Highway Construction, that are different from those required for State Aid construction.

5.5. The Requesting Party will perform final reviews and inspections of its portion of the project work. If the work is found to have been completed in accordance with the work order contract, the Requesting Party will promptly release any remaining funds due the Providing Party for the Project(s).

5.6. The work order contracts may include additional responsibilities to be completed by the Requesting Party.

6. Time

6.1. In the performance of project work under a work order contract, time is of the essence.

7. Consideration and Payment

7.1. **Consideration**. The Requesting Party will pay the Providing Party as specified in the work order. The State's normal and customary additives will apply to work performed by the State, unless otherwise specified in the work order. The State's normal and customary additives will not apply if the parties agree to a "lump sum" or "unit rate" payment.

7.2. **State's Maximum Obligation**. The total compensation to be paid by the State to the Other Party under all work order contracts issued pursuant to this MPC will not exceed $500,000.00.

7.3. **Travel Expenses**. It is anticipated that all travel expenses will be included in the base cost of the Providing Party's services, and unless otherwise specifically set forth in an applicable work order contract, the Providing Party will not be separately reimbursed for travel and subsistence expenses incurred by the Providing Party in performing any work order contract. In those cases where the State agrees to reimburse travel expenses, such expenses will be reimbursed in the same manner and in no greater amount than provided in the current "MnDOT Travel Regulations" a copy of which is on file with and available from the MnDOT District Office. The Other Party will not be reimbursed for travel and subsistence expenses incurred outside of Minnesota unless it has received the State's prior written approval for such travel.

7.4. Payment

7.4.1. **Generally**. The Requesting Party will pay the Providing Party as specified in the applicable work order, and will make prompt payment in accordance with Minnesota law.

7.4.2. **Payment by the Other Party**.

a. The Other Party will make payment to the order of the Commissioner of Transportation.

b. IMPORTANT NOTE: PAYMENT MUST REFERENCE THE "MNDOT CONTRACT NUMBER" SHOWN ON THE FACE PAGE OF THIS CONTRACT AND THE "INVOICE NUMBER" ON THE INVOICE RECEIVED FROM MNDOT.

c. Remit payment to the address below:

MnDOT

Attn: Cash Accounting

RE: MnDOT Contract Number 1050136W[XX] and Invoice Number: 00000[#####]

(see note above)

Mail Stop 215

395 John Ireland Blvd

St. Paul, MN 55155

7.4.3. **Payment by the State**.

a. Generally. The State will promptly pay the Other Party after the Other Party presents an itemized invoice for the services actually performed and the State's Authorized Representative accepts the invoiced services. Invoices must be submitted as specified in the applicable work order, but no more frequently than monthly.

b. Retainage for Professional and Technical Services. For work orders for professional and technical services, as required by Minn. Stat. § 16C.08, subd. 2(10), no more than 90 percent of the amount due under any work order contract may be paid until the final product of the work order contract has been reviewed by the State's authorized representative. The balance due will be paid when the State's authorized representative determines that the Other Party has satisfactorily fulfilled all the terms of the work order contract.

8. Conditions of Payment

8.1. All work performed by the Providing Party under a work order contract must be performed to the Requesting Party's satisfaction, as determined at the sole and reasonable discretion of the Requesting Party's Authorized Representative and in accordance with all applicable federal and state laws, rules, and

regulations. The Providing Party will not receive payment for work found by the Requesting Party to be unsatisfactory or performed in violation of federal or state law.

9. State's Authorized Representative and Project Manager

9.1. The State's Authorized Representative for this master contract is the District State Aid Engineer, who has the responsibility to monitor the State's performance.

9.2. The State's Project Manager will be identified in each work order contract.

10. Other Party's Authorized Representative and Project Manager

10.1. The Other Party's Authorized Representative for administering this master contract is the Other Party's Engineer, and the Engineer has the responsibility to monitor the Other Party's performance. The Other Party's Authorized Representative is also authorized to execute work order contracts on behalf of the Other Party without approval of each proposed work order contract by its governing body.

10.2. The Other Party's Project Manager will be identified in each work order contract.

11. Assignment, Amendments, Waiver, and Contract Complete

11.1. **Assignment**. Neither party may assign or transfer any rights or obligations under this MPC or any work order contract without the prior consent of the other and a fully executed Assignment Contract, executed and approved by the same parties who executed and approved this MPC, or their successors in office.

11.2. **Amendments**. Any amendment to this master contract or any work order contract must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original contract, or their successors in office.

11.3. **Waiver**. If a party fails to enforce any provision of this master contract or any work order contract, that failure does not waive the provision or the party's right to subsequently enforce it.

11.4. **Contract Complete**. This master contract and any work order contract contain all negotiations and contracts between the State and the Other Party. No other understanding regarding this master contract or any work order contract issued hereunder, whether written or oral may be used to bind either party.

12. Liability

12.1. Each party will be responsible for its own acts and omissions to the extent provided by law. The Other Party's liability is governed by Minn. Stat. chapter 466 and other applicable law. The State's liability is governed by Minn. Stat. section 3.736 and other applicable law. This clause will not be construed to bar any legal remedies a party may have for the other party's failure to fulfill its obligations under this master contract or any work order contract. Neither party agrees to assume any environmental liability on behalf of the other party. A Providing Party under any work order is acting only as a "Contractor" to the Requesting Party, as the term "Contractor" is defined in Minn. Stat. §115B.03 (subd. 10), and is entitled to the protections afforded to a "Contractor" by the Minnesota Environmental Response and Liability Act. The parties specifically intend that Minn. Stat. §471.59 subd. 1a will apply to any work undertaken under this MPC and any work order issued hereunder.

13. State Audits

13.1. Under Minn. Stat. § 16C.05, subd. 5, the party's books, records, documents, and accounting procedures and practices relevant to any work order contract are subject to examination by the parties and by the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this MPC.

14. Government Data Practices and Intellectual Property

14.1. **Government Data Practices**. The Other Party and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, as it applies to all data provided by the State under this MPC and any work order contract, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Other Party under this MPC and any work order contract. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data referred to in this clause by either the Other Party or the State.

14.2. **Intellectual Property Rights**

14.2.1. **Intellectual Property Rights**. The Requesting Party will own all rights, title, and interest in all of the intellectual property rights, including copyrights, patents, trade secrets, trademarks, and service marks in the Works and Documents created and paid for under work order contracts. Works means all inventions, improvements, discoveries (whether or not patentable), databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, and disks conceived, reduced to practice, created or originated by the Providing Party, its employees, agents, and subcontractors, either individually or jointly with others in the performance of this master contract or any work order contract. Works includes "Documents." Documents are the originals of any databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, disks, or other materials, whether in tangible or electronic forms, prepared by the Providing Party, its employees, agents, or contractors, in the performance of a work order contract. The Documents will be the exclusive property of the Requesting Party and all such Documents must be immediately returned to the Requesting Party by the Providing Party upon completion or cancellation of the work order contract. To the extent possible, those Works eligible for copyright protection under the United States Copyright Act will be deemed to be "works made for hire." The Providing Party Government assigns all right, title, and interest it may have in the Works and the Documents to the Requesting Party. The Providing Party must, at the request of the Requesting Party, execute all papers and perform all other acts necessary to transfer or record the Requesting Party's ownership interest in the Works and Documents. Notwithstanding the foregoing, the Requesting Party grants the Providing Party an irrevocable and royalty-free license to use such intellectual property for its own non-commercial purposes, including dissemination to political subdivisions of the state of Minnesota and to transportation-related agencies such as the American Association of State Highway and Transportation Officials.

14.2.2. **Obligations with Respect to Intellectual Property**.

a. **Notification**. Whenever any invention, improvement, or discovery (whether or not patentable) is made or conceived for the first time or actually or constructively reduced to practice by the Providing Party, including its employees and subcontractors, in the performance of the work order contract, the Providing Party will immediately give the Requesting Party's Authorized Representative written notice thereof, and must promptly furnish the Authorized Representative with complete information and/or disclosure thereon.

b. **Representation**. The Providing Party must perform all acts, and take all steps necessary to ensure that all intellectual property rights in the Works and Documents are the sole property of the Requesting Party, and that neither Providing Party nor its employees, agents or contractors retain any interest in and to the Works and Documents.

15. Affirmative Action

15.1. The State intends to carry out its responsibility for requiring affirmative action by its Contractors, pursuant to Minn. Stat. §363A.36. Pursuant to that Statute, the Other Party is encouraged to prepare and implement an affirmative action plan for the employment of minority persons, women, and the qualified disabled, and submit such plan to the Commissioner of the Minnesota Department of Human Rights. In addition, when the Other Party lets a contract for the performance of work under a work order issued pursuant to this MPC, it must include the following in the bid or proposal solicitation and any contracts awarded as a result thereof:

15.2. **Covered Contracts and Contractors**. If the Contract exceeds $100,000 and the Contractor employed more than 40 full-time employees on a single working day during the previous 12 months in Minnesota or in the state where it has its principle place of business, then the Contractor must comply with the requirements of Minn. Stat. § 363A.36 and Minn. R. Parts 5000.3400-5000.3600. A Contractor covered by Minn. Stat. § 363A.36 because it employed more than 40 full-time employees in another state and does not have a certificate of compliance, must certify that it is in compliance with federal affirmative action requirements.

15.3. **Minn. Stat. § 363A.36**. Minn. Stat. § 363A.36 requires the Contractor to have an affirmative action plan for the employment of minority persons, women, and qualified disabled individuals approved by the Minnesota Commissioner of Human Rights ("Commissioner") as indicated by a certificate of compliance. The law addresses suspension or revocation of a certificate of compliance and contract consequences in that event. A contract awarded without a certificate of compliance may be voided.

15.4. **Minn. R. Parts 5000.3400-5000.3600**.

15.4.1. **General**. Minn. R. Parts 5000.3400-5000.3600 implement Minn. Stat. § 363A.36. These rules include, but are not limited to, criteria for contents, approval, and implementation of affirmative action plans; procedures for issuing certificates of compliance and criteria for determining a contractor's compliance status; procedures for addressing deficiencies, sanctions, and notice and hearing; annual compliance reports; procedures for compliance review; and contract consequences for non-compliance. The specific criteria for approval or rejection of an affirmative action plan are contained in various provisions of Minn. R. Parts 5000.3400-5000.3600 including, but not limited to, parts 5000.3420-5000.3500 and 5000.3552-5000.3559.

15.4.2. **Disabled Workers**. The Contractor must comply with the following affirmative action requirements for disabled workers:

a. The Contractor must not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled persons without discrimination based upon their physical or mental disability in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

b. The Contractor agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.

c. In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minn. Stat. Section 363A.36, and the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.

d. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the commissioner of the Minnesota Department of Human Rights. Such notices must state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled employees and applicants for employment, and the rights of applicants and employees.

e. The Contractor must notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Minn. Stat. Section 363A.36, of the Minnesota Human Rights Act and is committed to take affirmative action to employ and advance in employment physically and mentally disabled persons.

15.4.3. **Consequences**. The consequences for the Contractor's failure to implement its affirmative action plan or make a good faith effort to do so include, but are not limited to, suspension or revocation of a certificate of compliance by the Commissioner, refusal by the Commissioner to approve subsequent plans, and termination of all or part of this contract by the Commissioner or the State.

15.4.4. **Certification**. The Contractor hereby certifies that it is in compliance with the requirements of Minn. Stat. § 363A.36 and Minn. R. Parts 5000.3400-5000.3600 and is aware of the consequences for noncompliance.

16. Workers' Compensation

16.1. Each party will be responsible for its own employees for any workers compensation claims. This MPC, and any work order contracts issued hereunder, are not intended to constitute an interchange of government employees under Minn. Stat. §15.53. To the extent that this MPC, or any work order issued hereunder, is determined to be subject to Minn. Stat. §15.53, such statute will control to the extent of any conflict between the contract and the statute.

17. Publicity

17.1. **Publicity**. Any publicity regarding the subject matter of a work order contract where the State is the Requesting Party must identify the State as the sponsoring agency and must not be released without prior written approval from the State's Authorized Representative. For purposes of this provision, publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Other Party individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from a work order contract.

17.2. **Data Practices Act**. Section 17.1 is not intended to override the Other Party's responsibilities under the Minnesota Government Data Practices Act.

18. Governing Law, Jurisdiction, and Venue

18.1. Minnesota law, without regard to its choice-of-law provisions, governs this master contract and all work order contracts. Venue for all legal proceedings out of this master contract or any work order contracts, or the breach of any such contracts, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

19. Prompt Payment; Payment to Subcontractors

19.1. The parties must make prompt payment of their obligations in accordance with applicable law. As required by Minn. Stat. § 16A.1245, when the Other Party lets a contract for work pursuant to any work order, the Other Party must require its contractor to pay all subcontractors, less any retainage, within 10 calendar days of the prime contractor's receipt of payment from the Other Party for undisputed services provided by the subcontractor(s) and must pay interest at the rate of one and one-half percent per month or any part of a month to the subcontractor(s) on any undisputed amount not paid on time to the subcontractor(s).

20. Minn. Stat. § 181.59.

20.1. The Other Party will comply with the provisions of Minn. Stat. § 181.59 which requires: Every contract for or on behalf of the state of Minnesota, or any county, city, town, township, school, school district, or any other district in the state, for materials, supplies, or construction shall contain provisions by which the Contractor agrees: (1) That, in the hiring of common or skilled labor for the performance of any work under any contract, or any subcontract, no contractor, material supplier, or vendor, shall, by reason of race, creed, or color, discriminate against the person or persons who are citizens of the United States or resident aliens who are qualified and available to perform the work to which the employment relates; (2) That no contractor, material supplier, or vendor, shall, in any manner, discriminate against, or intimidate, or prevent the employment of any person or persons identified in clause (1) of this section, or on being hired, prevent, or conspire to prevent, the person or persons from the performance of work under any contract on account of race, creed, or color; (3) That a violation of this section is a misdemeanor; and (4) That this contract may be canceled or terminated by the state, county, city, town, school board, or any other person authorized to grant the contracts for employment, and all money due, or to become due under the contract, may be forfeited for a second or any subsequent violation of the terms or conditions of this contract.

21. Termination; Suspension

21.1. **Termination by the State for Convenience**. The State or commissioner of Administration may cancel this MPC and any work order contracts at any time, with or without cause, upon 30 days written notice to the Other Party. Upon termination, the Other Party and the State will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.

21.2. **Termination by the Other Party for Convenience**. The Other Party may cancel this MPC and any work order contracts at any time, with or without cause, upon 30 days written notice to the State. Upon termination,

the Other Party and the State will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.

21.3. **Termination for Insufficient Funding**. The State may immediately terminate or suspend this MPC and any work order contract if it does not obtain funding from the Minnesota legislature or other funding source; or if funding cannot be continued at a level sufficient to allow for the payment of the services covered here. Termination or suspension must be by written or fax notice to the Other Party. The State is not obligated to pay for any services that are provided after notice and effective date of termination or suspension. However, the Other Party will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed to the extent that funds are available. The State will not be assessed any penalty if the master contract or work order is terminated because of the decision of the Minnesota legislature or other funding source, not to appropriate funds. The State must provide the Other Party notice of the lack of funding within a reasonable time of the State's receiving that notice.

22. Data Disclosure

22.1. Under Minn. Stat. §270C.65, subd. 3, and other applicable law, the Other Party consents to disclosure of its federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and state tax agencies and state personnel involved in the payment of state obligations. These identification numbers may be used in the enforcement of federal and state tax laws which could result in action requiring the Other Party to file state tax returns and pay delinquent state tax liabilities, if any.

23. Defense of Claims and Lawsuits

23.1. If any lawsuit or claim is filed by a third party (including but not limited to the Other Party's contractors and subcontractors), arising out of trunk highway work performed pursuant to a valid work order issued under this MPC, the Other Party will, at the discretion of and upon the request of the State, tender the defense of such claims to the State or allow the State to participate in the defense of such claims. The Other Party will, however, be solely responsible for defending any lawsuit or claim, or any portion thereof, when the claim or cause of action asserted is based on its own acts or omissions in performing or supervising the work. The Other Party will not purport to represent the State in any litigation, settlement, or alternative dispute resolution process. The State will not be responsible for any judgment entered against the Other Party, and will not be bound by the terms of any settlement entered into by the Other Party except with the written approval of the Attorney General and the Commissioner of Transportation and pursuant to applicable law.

24. Additional Provisions

24.1. NONE

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OTHER PARTY

The Other Party certifies that the appropriate person(s) have executed the contract on behalf of the Other Party as required by applicable articles, bylaws, resolutions or ordinances.

By: _____

Title: Chaska City Administrator

Date: _____

By: _____

Title: Chaska City Engineer

Date: _____

COMMISSIONER OF TRANSPORTATION

By: _____

Date: _____

Title: _____

COMMISSIONER OF ADMINISTRATION

By: _____

Date: _____

Source Code	Title	Description
1735	Bituminous Plant Inspection	Performing QA/QC physical testing at the plant; sampling and transporting of materials from the plant to the lab for lab testing, plant reviews, and operations; investigating plant discrepancies; and other technical services in the plant or office associated with bituminous plant inspection.
2830	Bridge Bearing Assemblies	All tasks related to the repair and maintenance of fixed or expansion-bearing assemblies on bridges. Includes related traffic
2819	Bridge Curb, Walk And Railing	Repairing and maintaining bridge curb, walk, rail, coping, and fencing connected to the rail. Includes glare screen and median barriers on bridges. Includes related traffic control.
2820	Bridge Deck	Work associated with bridge deck and slab repair regardless of removal depth or type of material used for patching. Includes deck or slab overlays and replacements and underside deck delamination. Includes related traffic control.
2838	Bridge Deck Crack Sealing	All tasks related to deck crack sealing. Includes related traffic control.
2827	Bridge Expansion, Relief Joints	All maintenance tasks associated with bridge expansion joints, except joint reestablishment. Includes tightening expansion device bolts and replacing seal glands. Includes related traffic control.
2855	Bridge Inspection Direct Support	Activities that support bridge inspection, but are not direct production (i.e., leadership, technical, administrative assistance.
2828	Bridge Inspection-Federal Fund	All bridge inspection tasks for non-MnDOT bridges funded by the federal Fracture-Critical Bridge Program (Project Code will begin with TSL and with the local bridge number). Includes related inspection reports. For MnDOT Trunk Highway bridges (Project Code begins with TSO followed by the bridge number) and local and Department of Natural Resources (DNR) (bridge number begins with 9A follow by bridge number) bridge inspections to be billed to the local government or Department of Natural Resources (DNR) use Source Code 2824.
2824	Bridge Inspection-Non-Federal	All tasks related to inventory, inspection, and load capacity rating work done on trunk highway bridges to meet the requirements of the National Bridge Inspection System and/or Minnesota Bridge Safety Inspection Program or for billing to local governments. Includes related inspection reports and deck condition surveys.
1421	Bridge Management System Operation/Administration/Data	Use for tasks related to the Bridge Management System, including operations, administration, or data entry.
2847	Bridge Poured/ Relief Joint Seal	All tasks associated with resealing bridge construction joints. Includes related traffic control. Related source type codes: Activities that support bridge inspection, but are not direct production (i.e., leadership, technical, administrative assistance).
2829	Bridge Superstructure	All tasks to repair any bridge component above the bridge seat that is not included in other source codes. Includes repairs to all types of bridge superstructure elements such as girders, beams, floor beams, trusses, stringers, t-beams, precast channels, and box girders. Includes related traffic control.
2316	Brush & Tree Removal	Maintaining, watering, trimming, and removing highway right of way tree and brush. Includes chipping of tree limbs and stump removal/grinding. Includes related traffic control.
0032	Business Unit Management	All expenses of business/office managers for general management and administration of support functions. includes administering central facilities maintenance and facilities capital budgets.
3000	Class Of Frequency Coordination	Use for frequency coordination done with APCO, AASHTO or FCCA.

Source Code	Title	Description
1733	Concrete Plant Inspections	Performing QA/QC physical testing at the plant; sampling and transporting of materials from the plant to the lab for lab testing, plant reviews, and operations; investigating plant discrepancies; and other technical services in the plant or office associated with stationary concrete plants or mobile concrete paving plant inspection.
1734	Construction Materials Inspections	Performing construction phase material inspection and engineering, for structural steel, precast and pre-stressed concrete, reinforcement steel, and electrical products and related technical services in the field and office for materials to be used in multiple projects. Includes travel time, sampling, and sample delivery. Includes tasks related to reviewing shop drawings furnished by suppliers or fabricators and contractor working drawings or calculations, and for tasks related to structural metals inspection (materials surveys, physical and chemical laboratory testing, material inspection and engineering, and technical services in the field and offices).
1802	Construction Surveying	Use for surveys to provide staking for the contractor's operations and for any other construction phase surveying
2106	Crack Sealing	All surface crack sealing, crack filling, or rout and seal operations. Includes related materials, hauling, stockpiling, and traffic control.
3023	Elec Comm Eq Rep - Miles	
0400	Equipment Calibration-Mat Insp	Use when performing periodic equipment calibration for equipment used in the materials lab or on construction projects.
1800	Field Inspection	All construction project field inspection (not cyclical inspection of assets), including preparatory plans & spec review, measurement, and verification other than environmental monitoring. Includes field inspection of materials such as gradations, densities/DCP, proctors, compaction, slump tests, and field air tests. Witnessing claims, determination and computation of pay quantities, materials control and certification for progress vouchers, but not for final payments. Includes collecting and transporting samples for lab tests, but not the actual laboratory verifications. Includes all construction phase project related activities for project and resident engineers such as problem resolution, guidance and direction to field technicians. Includes all miscellaneous field engineering expenses used by district offices such as space rental, utilities, or other costs charged to the construction project Includes all work associated with evaluation of implementation of intelligent compaction devices to determine if construction contract terms have been met.
1040	Final Design Surveys	All district field and office tasks needed to respond to supplemental "Requests for Survey Data" and add the data to the surveys base map or DTM.
0601	Gen Training Preparation - Delivery	Use for time, materials, and travel expenses when developing or delivering training. includes course preparation, designing materials, and managing training records.
2210	Guardrail-Install/Repair/Maintenance	Install, repair, or maintain low tension cable, plate beams, and end treatments; cable tension adjustments; and reflector replacement. includes related traffic control.
2624	Indirect Expense	Indirect shop expenses and shop equipment. Allocate to mobile equipment.
1871	Lighting Maintenance & Utilities	All work related to installing, maintaining, restoring, or removing highway lighting systems and fixtures. Includes repairing, maintaining, or replacing supports necessary for roadway lighting luminaries. Includes patrol highway lighting, inspect lighting structures, electrical service for highway lighting, re-lamping, pump stations, anti-icing systems, truck roll-over warning systems and electrical repairs. Includes traffic control in support of roadway lighting activities. Use for tasks related to public inquiries/complaints, review utility billings, provide data, and conduct field reviews.

Source Code	Title	Description
1875	Locate One Call	Finding and marking locations of buried conduit, cables, hand holes, loops, etc. in order to maintain or repair the traffic management system, signal systems, or roadway lighting systems.
1732	Material Testing & Inspection	Performing construction phase and research physical and chemical laboratory testing, and related technical services in the districts and central labs, and for performing research and construction phase non-destructive testing materials surveys, and related technical services in the field and offices. Includes detour surveys. Non-destructive tests include, skid resistance and falling weight deflectometer (FWD) testing.
2660	Misc Revenue	Used only by Office of Financial Management for billing and deposit transactions and to record payments to the department for gravel sold to contractors and others.
2822	Miscellaneous Bridge Maintenance	Miscellaneous maintenance tasks performed on a specific bridge or structure not covered by other source codes. Includes work on items such as stairways, drains, fencing, light bases, transient guards, and access doors. Includes transient removal, ordering materials, and picking up equipment. Includes related traffic control.
3049	On Call Electronic Communications Infrastructure Maintenance	To be used by Statewide Radio Communications personnel to record on-call time.
2142	Overhead Sign Panel Maintenance	Work related to the repair and replacement of overhead sign panels, extruded sign panels mounted on I-beams, and overhead sign structures. Includes related cable locates and traffic control. Does not include structural work.
2102	Patching	Related source type codes: 2103-Heavy patching, 2104-Bituminous paving, 2105-Blow patching
1520	Pavement Management System	For tasks related to the operation of the pavement management system, including development and maintenance/technical support. Includes tasks to meet needs external to MnDOT.
2406	Plowing & Material Application	Shoulder to shoulder snow removal operation, winging back, snow blowing drifts, and the application of de-icing chemicals using mobile equipment. Includes changing cutting edges during event and related traffic control.
3005	Radio - Mobile Equipment	Use for the repair and preventative maintenance of all equipment associated with wireless two-way radio communications systems (includes mobile radios, portable radios, base stations, console workstations, recorders, etc.). Non-MnDOT equipment - Must use Project number assigned to requesting agency (State Patrol, DNR, BCA, Fire Marshall). See OSRC Project Code list.
3027	Radio Programming	Creating or modifying radio frequency programs and programming mobile and portable radios. Does not include mobile radios used as fixed base radios as part of the Inter-OP System (Use 3009).
3002	Radio/Electronic Infrastructure	Use for the repair and preventative maintenance of all equipment associated with wireless two-way radio communications systems (includes mobile radios, portable radios, base stations, console workstations, recorders, etc.). Non-MnDOT equipment - Must use Project number assigned to requesting agency; Department of Public Safety (DPS) includes State Patrol (SP) Bureau of Criminal Apprehension (BCA), Fire Marshall); does not include Department of Natural Resources (DNR). See OSRC Project
3007	Radio/Electronic System Engineering	Use for design of microwave, radio and miscellaneous electronic systems.
3009	Radio/Electronic System Upgrade & Installation	Use for the installation and other services needed to provide major system upgrades or improvements to wireless or electronic systems. Use for all work performed to correct or repair deficiencies found in a new installation.
1716	Record Sampling	Used by Materials and Research Section and district materials staff to verify inspector" sampling and testing procedures and checking inspectors' equipment during project construction as required by FHWA. Use when performing field tests on split sample.

Source Code	Title	Description
2222	Sign/Delineation/Marker Repair	Replacing, repairing, and washing signs (including temporary stop signs). Includes re-sequencing intersection signing and repair/replace overhead and extrude signs mounted on I-beams. Includes related cable locates and traffic control.
1182	Soils/Foundation Field/Laboratory Tests	All laboratory testing necessary to provide geotechnical information to complete roadway soils recommendations and approvals for use in the development of Final Design Plans and Special Provisions. Lab work includes R-value, resilient modulus, soil classification, gradation, proctor testing, unconfined compression, consolidation, direct simple shear, direct sheer, permeability and triaxial tests.
1879	State Furnished Materials	Use to record labor hours, equipment usage, and material costs to supply state furnished materials to a state road construction project with federal participation.
1738	State Project - Specific Materials Inspection	Performing material inspection and engineering for materials designated for a specific construction project (SP). Generally applies to inspection of such things as structural steel, prestressed concrete items, and most precast concrete items and related technical services in the field and offices when related to a particular SP. Use for SP specific tasks related to performing the review of shop drawings furnished by suppliers or fabricators and contractor working drawings or calculations, and for tasks related to structural metals inspection (materials surveys, physical and chemical laboratory testing, material inspection and engineering and technical services in the field and offices).
1434	Structural Metals Inspection-Non DOT	Reviewing shop drawings furnished by suppliers, fabricators, and contractors (working drawing or calculations), and for tasks related to structural metals inspection (materials surveys, physical and chemical laboratory testing, material inspection and engineering, and technical services in the field and offices) for local agency projects.
2629	Supplies & Small Tools	Shop tools, small equipment, and supplies that cannot be directly charged to a mobile equipment unit.
0152	Support Services	Work that supports general office management, system management such as entering data into SWIFT, PPMS, PUMA and other MnDOT systems, attending staff meetings and other indirect support activities.
1312	Tech Assist-Outside MnDOT	Use when providing technical assistance to an organization external to MnDOT.
3025	Tower/Building Maintenance	Use for all tasks related to the maintenance of a tower building or site. Includes towers, buildings, generators, LP system, fencing, landscaping, grounding, ice bridge, cable management, climbing ladders, card key systems, and HVAC.
1876	Traffic Counting	Use to record labor, equipment usage, and material costs for activities related to traffic counts made for statewide traffic monitoring or traffic operations. Includes all activities related to traffic counting, such as taking requests, assigning priorities, collecting field data, processing data, and developing new techniques for collection.
1501	Traffic Management System (TMS)	Used by traffic operations staff for all tasks that support the RTMC's operations center (or TOCC) providing traveler information, managing incidents and monitoring the FMS. Includes dynamic message sign maintenance, ramp meter maintenance, camera maintenance, and loop detection activities. Includes maintenance activities related to any ITS or TMS device such as RTMC cables, monitor wall, switchers, routers, or modems. Use to record all costs for maintenance activities related to traffic management fiber optics. Use for tasks related to maintaining traffic operations software including minor software enhancements and fixes. Use when providing traffic operations technical assistance external to MnDOT. Use with

Source Code	Title	Description
1513	Traffic Management System (TMS) Integration	For tasks associated with the incorporation of new and existing TMS devices (cameras, loops, DMS, and other ITS devices) into existing infrastructure to ensure proper operation. Use with the Construction/Program Delivery Appropriation.
1500	Traffic Mgt System Maintenance	Used by staff to maintain various Intelligent Transportation System (ITS) devices such as dynamic message signs, ramp meters, cameras, detection, cables, RICWS, video wall monitors, switches, routers or modems. Used to record all costs for maintenance activities related to traffic management fiber optics. Not to be used for Lighting or Traffic Signal maintenance.
1721	Traffic Sign Work Orders	Use for work involved in preparing work orders for traffic signs. Use only with Maintenance Operations appropriation (T790081).
2863	Traffic Signal Inspection	Work related to cyclical structural and electrical inspection and preventive maintenance checks of traffic signal systems/structures. Includes labor, equipment, materials, and traffic control.
1870	Traffic Signal Maintenance	Work related to the structural repair and replacement of traffic signal system structures and all electrical maintenance for traffic signal systems including electrical power, labor, equipment materials, GSOC locates, traffic control and responses to public inquiries.
2834	Waterway Maintenance	All tasks related to waterway maintenance for deck bridges. Includes debris removal, waterway cleanup, channel repair, and channel protection repair that is not part of slope protection. Includes related traffic control.

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 4/18/2022 RESOLUTION NO. 2022-39

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

A RESOLUTION APPROVING ENTERING INTO
MnDOT MASTER PARTNERMSHIP CONTRACT

WHEREAS, the Minnesota Department of Transportation wishers to cooperate closely with local units of government to coordinate the delivery of transportation services and maximize the efficient delivery of such services at all levels of government; and

WHEREAS, MnDOT and local governments are authorized by Minnesota Statutes sections 471.59, 174.02, and 161.20, to undertake collaborative efforts for the design, construction, maintenance and operation of state and local roads; and

WHEREAS, the parties wish to be able to respond quickly and efficiently to such opportunities for collaboration and have determined that having the ability to write "work orders" against a master contract would provide the greatest speed and flexibility in responding to identified needs.

THEREFORE, be it resolved:

1. That the City Council of the City of Chaska hereby enters into a Master Partnership Contract with the Minnesota, Department of Transportation, a copy of which was before the Council.

2. That the proper Chaska officers are authorized to execute and negotiate such contract and any amendments thereto.

3. That the City Administrator and City Engineer are authorized to negotiate work order contracts pursuant to the Master Contract, which work order contracts may provide for payment to or from MnDOT.

NOW, THEREFORE, BE IT RESOLVED, that the City Administrator and the City Engineer are authorized to execute and negotiate such work order contracts on behalf of the City of Chaska without further approval by this Council.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April 2022.

Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

REQUEST FOR ACTION
CHASKA CITY COUNCIL
4/18/2022

Subject: **Construction Plans for Downtown Chaska TH 41/CSAH 61 Project**

Prepared By: **Matt Clark, City Engineer**

Consistent with the overall timeline for the project, the next step in the City process requires Council approval of the construction documents and authorize staff to receive bids for the Downtown Chaska TH 41/CSAH 61 Project scheduled for work along Chaska Boulevard/CSAH 61 this summer, and then Chestnut Street/TH 41 in 2023.

As the Council is aware, the vision for Highway 41 through downtown Chaska is a two-lane road with turn lanes that better balances roadway needs with the pedestrian space. The addition of streetscaping, pedestrian/bicyclist connections, and gathering spaces will create a more comfortable and inviting environment for all users. These improvements will preserve and enrich the downtown ambience while making it a popular destination and hub of the community.

The construction plans are complete and attached for the Council's consideration. The project website https://downtownchaska.com/downtown-highway-41-project/ is also another reference for project updates and the overall planning exhibits.

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-48, approving the construction documents for the Downtown Chaska TH 41/CSAH 61 Project, and authorizing the solicitation of public bids.

MINNESOTA DEPARTMENT OF TRANSPORTATION
CITY OF CHASKA

CONSTRUCTION PLAN FOR: GRADING, BITUMINOUS SURFACING, ADA IMPROVEMENTS, RETAINING WALLS, SIGNALS, LIGHTING, TMS, AND PEDESTRIAN UNDERPASS (BRIDGE NO. 10X23)

LOCATED ON TH 41 FROM 340' S. OF MN RIVER BRIDGE TO 600' N. OF CSAH 61
LOCATED ON CSAH 61 FROM TH 41 TO 400' E. OF YELLOW BRICK RD

STATE PROJ. NO. 1008-87 (TH 41), S.P. 196-010-017

GROSS LENGTH	4,230.42	FEET	0.801 MILES
BRIDGES-LENGTH	504.00	FEET	0.095 MILES
EXCEPTIONS-LENGTH	504.00	FEET	0.095 MILES
NET LENGTH	3,726.42	FEET	0.706 MILES

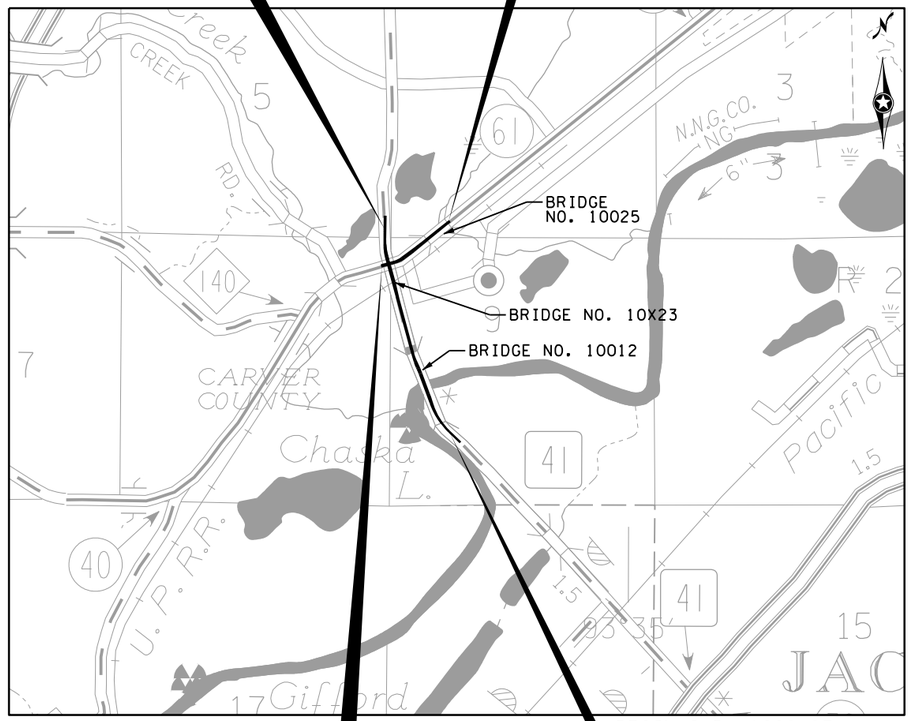
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STATE PROJ. NO. 196-020-014 (CSAH 61)

GROSS LENGTH	1587.70	FEET	0.301 MILES
BRIDGES-LENGTH	58.00	FEET	0.011 MILES
EXCEPTIONS-LENGTH		FEET	MILES
NET LENGTH	1529.70	FEET	0.290 MILES

END S.P. 1008-87,
S.P. 196-010-017, S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

END S.P. 196-020-014
C.S.A.H. 61 E.B. STA 34+26.52



BEGIN S.P. 196-020-014
C.S.A.H. 61 E.B. STA 18+38.82

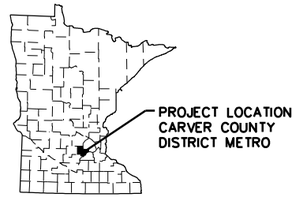
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S.P. 196-010-017, S.P. 196-010-018
T.H. 41 N.B. STA 81+07.12

WARNING:
HIGH PRESSURE
GAS LINE

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-.2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

AGREEMENT NO.
CITY OF CHASKA
SP 1008-87 (TH 41=260)

METRO DISTRICT



PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

INDEX MAP	0'	3000
GENERAL LAYOUT	0'	150'
PLAN	0'	25'
PROFILE	0' HORIZ.	25'
	0' VERT.	5'
CROSS-SECTION	0' HORIZ.	5'
	0' VERT.	5'

TH 41 DESIGN DESIGNATION
SP 1008-87 (TH 41)

ADT (Current Year) (2022)	=	20,070
ADT (Future Year) (2042)	=	27,550
HCADT (Future Year) (2042)	=	2,400
FUNCTIONAL CLASSIFICATION:		PRINCIPAL ARTERIAL
NO. OF TRAFFIC LANES:		2-4
NO. OF PARKING LANES:		0
SHOULDER WIDTH		0'-4'
STRUCTURAL DESIGN:		10 TON
R VALUE: 30	ESAL	8,317,000
DESIGN SPEED:		30 MPH
BASED ON:		STOPPING SIGHT DISTANCE
HEIGHT OF EYE: 3.5'	HEIGHT OF OBJECT:	2.0'

CSAH 61 DESIGN DESIGNATION
SP 196-020-014 (CSAH 61)

ADT (Current Year) (2022)	=	8,300
ADT (Future Year) (2042)	=	19,990
HCADT (Future Year) (2042)	=	2,000
FUNCTIONAL CLASSIFICATION:		MINOR ARTERIAL
NO. OF TRAFFIC LANES:		4
NO. OF PARKING LANES:		0
SHOULDER WIDTH		0'-13'
STRUCTURAL DESIGN:		10 TON
R VALUE: 30	ESAL	5,222,000
DESIGN SPEED:		30 MPH
BASED ON:		STOPPING SIGHT DISTANCE
HEIGHT OF EYE: 3.5'	HEIGHT OF OBJECT:	2.0'

DESIGN DESIGNATION – (BIKE PATH)

DESIGN SPEED: 20 MPH
BASED ON: STOPPING SIGHT DISTANCE
HEIGHT OF EYE: 4.5' HEIGHT OF OBJECT: 0.0'
DESIGN SPEED NOT ACHIEVED AT: N/A

FED. PROJ. NO. NHFP-NHPP-STBG 0041(300)

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

SHEET NO. INDEX

SHEET NO.	INDEX
1	TITLE SHEET
2	GENERAL LAYOUT
3-9	STATEMENT OF ESTIMATED QUANTITIES
10	TABULATION INDEX, STANDARD PLATES & NOTES
11-12	EARTHWORK TABULATION & SUMMARY
13-20	QUANTITY TABULATION
21-28	TYPICAL SECTIONS
29-30	MISCELLANEOUS DETAILS
31-70	STANDARD PLANS
71-74	ALIGNMENT PLAN & TABULATION
75-87	EXISTING UTILITY TABULATION
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132-139	CONSTRUCTION PROFILE
140-155	SIDEWALK DETAIL PLAN
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165-166	APPROACH PANEL PLAN
167-178	RETAINING WALL PLAN
179-193	PARKING LOT AND ALLEY PLANS
194-200	PUBLIC UTILITY DETAILS
201-222	DRAINAGE PLAN
223-228	LIFT STATION PLAN
229-238	SANITARY SEWER & WATERMAIN PLAN
239-241	STORM WATER POLLUTION PREVENTION PLAN
242-252	TURF ESTABLISHMENT & EROSION CONTROL PLAN
253-293	SIGNING & STRIPING PLAN
294-337	SIGNAL PLAN
338-359	LIGHTING PLAN
L1-L29	STREETSCAPE PLAN
TC1-TC36	STAGING & TRAFFIC CONTROL PLAN
SZ1-SZ17	TRAFFIC MANAGEMENT SYSTEMS PLAN
S1-S8	PLATFORM REPLACEMENT PLAN
B1-B26	UNDERPASS PLAN
XS1-XS43	CROSS SECTIONS

THIS PLAN CONTAINS 518 SHEETS

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
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Email: Burnsville@bolton-menk.com
www.bolton-menk.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: DENA M. KING LICENSE # 45859

DATE: 03-02-2022 SIGNATURE:

RECOMMENDED FOR APPROVAL ..... 20 .....
CITY OF CHASKA CITY ENGINEER

RECOMMENDED FOR APPROVAL ..... 20 .....
CARVER COUNTY ENGINEER

OFFICE OF LAND MANAGEMENT APPROVAL ..... 20 .....
DIRECTOR, LAND MANAGEMENT

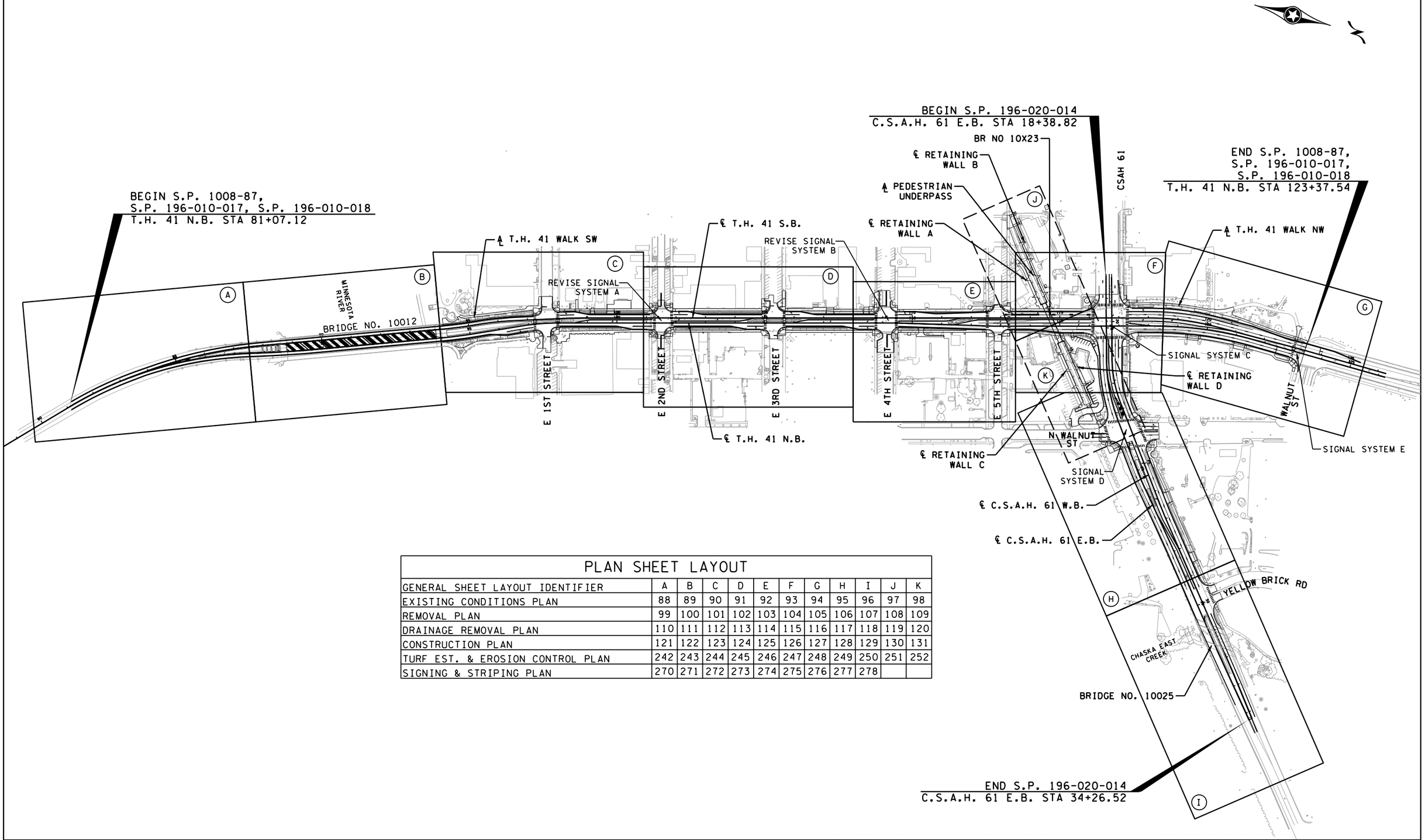
APPROVED ..... 20 .....
STATE DESIGN ENGINEER

..... 20 .....
DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AND/OR FEDERAL AID RULES/POLICY

..... 20 .....
APPROVED FOR STATE AND/OR FEDERAL AID FUNDING: STATE AID ENGINEER

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 1 OF 359

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PLAN SHEET LAYOUT											
GENERAL SHEET LAYOUT IDENTIFIER	A	B	C	D	E	F	G	H	I	J	K
EXISTING CONDITIONS PLAN	88	89	90	91	92	93	94	95	96	97	98
REMOVAL PLAN	99	100	101	102	103	104	105	106	107	108	109
DRAINAGE REMOVAL PLAN	110	111	112	113	114	115	116	117	118	119	120
CONSTRUCTION PLAN	121	122	123	124	125	126	127	128	129	130	131
TURF EST. & EROSION CONTROL PLAN	242	243	244	245	246	247	248	249	250	251	252
SIGNING & STRIPING PLAN	270	271	272	273	274	275	276	277	278		

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BOLTON & MENK

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REV.	BY	DATE

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	DMK
DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
GENERAL LAYOUT

SHEET 2 OF 359

STATEMENT OF ESTIMATED QUANTITIES

TAB	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	NOTES	UNIT	TOTAL QUANTITY	S.P. 1008-87, S.P. 196-010-017 T.H. 41 ROADWAY QUANTITY	S.P. 196-010-018 T.H. 41 LANDSCAPING QUANTITY	S.P. 196-020-014 C.S.A.H. 61 ROADWAY QUANTITY	S.P. 196-020-014 C.S.A.H. 61 STORM SEWER QUANTITY	S.P. 1008-87 100% MNDOT QUANTITY	NON-PART 100% CITY QUANTITY
		2011.601	VIBRATION MONITORING		LUMP SUM	1	1					
		2011.601	AS BUILT		LUMP SUM	1	1					
		2016.601	CONTRACT MANAGEMENT		LUMP SUM	1	1					
		2016.601	QUALITY MANAGEMENT - THERMAL PROFILING		LUMP SUM	1	1					
		2016.601	QUALITY MANAGEMENT - INTELLIGENT COMPACTION		LUMP SUM	1	1					
		2021.501	MOBILIZATION		LUMP SUM	1	0.58	0.15	0.12	0.04	0.01	0.10
		2031.502	FIELD OFFICE		EACH	1	0.58	0.15	0.12	0.04	0.01	0.10
		2041.610	TRAINEES		HOUR							
B	13	2101.502	CLEARING		EACH	86	61		25			
B	13	2101.502	GRUBBING		EACH	86	61		25			
V	260	2102.503	PAVEMENT MARKING REMOVAL		LIN FT	200	200					
		2103.501	BUILDING REMOVAL A	(9)	LUMP SUM	1	1					
E	15-16	2104.502	REMOVE PIPE APRON		EACH	1			1			
D	14	2104.502	REMOVE BOLLARDS		EACH	90	76		14			
D	14	2104.502	REMOVE WOOD POST		EACH	2	2					
D	14	2104.502	REMOVE LIGHTING UNIT		EACH	52	49		3			
D	14	2104.502	REMOVE MANHOLE		EACH	12	12					
E	15-16	2104.502	REMOVE CASTING		EACH	4	1		3			
D	14	2104.502	REMOVE GATE VALVE AND BOX		EACH	22	19		3			
D	14	2104.502	REMOVE HYDRANT		EACH	7	6		1			
E	15-16	2104.502	REMOVE DRAINAGE STRUCTURE		EACH	94	79		15			
U	259	2104.502	REMOVE DELINEATOR / MARKER		EACH	11	7		4			
U	259	2104.502	REMOVE SIGN		EACH	77	64		13			
D	14	2104.502	REMOVE LIGHT FOUNDATION		EACH	52	49		3			
D	14	2104.502	REMOVE BENCH		EACH	2	2					
D	14	2104.502	REMOVE WASTE RECEPTACLE		EACH	7	7					
D	14	2105.502	REMOVE DUMPSTER ENCLOSURE		EACH	2	2					
H	18	2104.502	REMOVE ENERGY ABSORBING TERMINAL		EACH	2			2			
U	259	2104.502	SALVAGE SIGN	(20)	EACH	4	3		1			
U	259	2104.502	SALVAGE SIGN PANEL		EACH	16	12		4			
		2104.502	ABANDON MANHOLE	(23)	EACH	1						1
		2104.502	ABANDON LIFT STATION		EACH	1						1
		2104.503	SAWING CONCRETE PAVEMENT	(1)	LIN FT	252	252					
D	14	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	140	140					
D	14	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)		LIN FT	2267	1624		643			
D	14	2104.503	REMOVE WATER MAIN		LIN FT	3710	2564		1146			
E	15-16	2104.503	REMOVE SEWER PIPE (STORM)		LIN FT	6481	4668		1813			
D	14	2104.503	REMOVE SEWER PIPE (SANITARY)		LIN FT	1929	1778		151			
D	14	2104.503	REMOVE CURB AND GUTTER		LIN FT	12209	10132		2077			
D	14	2104.503	REMOVE CONCRETE CURB		LIN FT	2284	1899		385			
D	14	2104.503	REMOVE RETAINING WALL	(24)	LIN FT	336	155		181			
D	14	2104.503	REMOVE CONCRETE RETAINING WALL	(24)	LIN FT	108	108					
D	14	2104.503	REMOVE STONE RETAINING WALL	(24)	LIN FT	84	84					
H	18	2104.503	REMOVE GUARDRAIL-PLATE BEAM		LIN FT	300			300			
D	14	2104.503	REMOVE ORNAMENTAL RAILING		LIN FT	353	144		209			
D	14	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT		SQ YD	488	471		17			

SEE SHEET 9 FOR PLAN NOTES

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REV.	BY	DATE

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED AMR
DRAWN BAU
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STATEMENT OF ESTIMATED QUANTITIES

SHEET 3 OF 359

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7.B Adopt Resolution 2022-48, Approve...
Packet Page 32 of...
Page 4 of 494

STATEMENT OF ESTIMATED QUANTITIES

TAB	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	NOTES	UNIT	TOTAL QUANTITY	S.P. 1008-87, S.P. 196-010-017 T.H. 41 ROADWAY QUANTITY	S.P. 196-010-018 T.H. 41 LANDSCAPING QUANTITY	S.P. 196-020-014 C.S.A.H. 61 ROADWAY QUANTITY	S.P. 196-020-014 C.S.A.H. 61 STORM SEWER QUANTITY	S.P. 1008-87 100% MNDOT QUANTITY	NON-PART 100% CITY QUANTITY
D	14	2104.504	REMOVE CONCRETE PAVEMENT		SQ YD	6369	4147		2222			
D	14	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT		SQ YD	726	386		340			
D	14	2104.504	REMOVE BITUMINOUS PAVEMENT		SQ YD	31954	21990		9964			
D	14	2104.518	REMOVE BITUMINOUS WALK		SQ FT	3832	3288		544			
D	14	2104.518	REMOVE CONCRETE MEDIAN		SQ FT	832			832			
D	14	2104.518	REMOVE CONCRETE WALK		SQ FT	92745	77651		15094			
		2104.601	RELOCATE MISCELLANEOUS STRUCTURES	(25)	LUMP SUM	1	1					
		2104.601	REMOVE MISCELLANEOUS STRUCTURES	(25)	LUMP SUM	1	1					
		2104.601	REMOVE REGULATED WASTE MATERIAL	(9)	LUMP SUM	1	1					
		2104.602	RELOCATE COMMERCIAL SIGN	(15)	EACH	1	1					
		2104.603	ABANDON PIPE SEWER	(23)	LIN FT	215						215
AA	18	2104.618	SALVAGE BRICK PAVERS		SQ FT	1287	1287					
BB	B2	2105.607	SELECT GRANULAR EMBANKMENT MOD 10% (CV)		CU YD	2910	2910					
		2106.601	DEWATERING	(16)	LUMP SUM	1	1					
A	11-12	2106.507	EXCAVATION - COMMON (P)		CU YD	36887	30097		6790			
A	12	2106.507	EXCAVATION - CHANNEL AND POND (P)		CU YD	4700				4700		
G	17	2106.507	SELECT GRANULAR EMBANKMENT (CV) (P)		CU YD	24137	17551		6586			
A	11-12	2106.507	COMMON EMBANKMENT (CV) (P)		CU YD	1118	854		264			
A	12	2106.607	EXCAVATION SPECIAL		CU YD	3180	960		2220			
A	12	2106.607	HAUL AND DISPOSE OF CONTAMINATED MATERIAL		CU YD	7880	960		6920			
F	17	2108.504	GEOTEXTILE FABRIC TYPE 5		SQ YD	5050	5050					
		2123.510	COMMON LABORERS	(13)	HOUR	60	40		20			
		2123.510	DOZER	(13)	HOUR	60	40		20			
G	17	2211.507	AGGREGATE BASE (CV) CLASS 5 (P)		CU YD	1725	1725					
G	17	2211.507	AGGREGATE BASE (CV) CLASS 6 (P)		CU YD	10563	7390		3173			
G	17	2211.607	AGGREGATE BASE SPECIAL (CV)		CU YD	25	25					
G	17	2211.607	CRUSHED ROCK		CU YD	65	65					
F	17	2231.509	BITUMINOUS PATCH SPECIAL		SQ YD	64	64					
		2232.504	MILL CONCRETE SURFACE (2.0")	(1)	SQ YD	100	100					
I	18	2301.504	CONCRETE PAVEMENT 8.0"		SQ YD	500	468		32			
F	17	2331.603	JOINT ADHESIVE		LIN FT	16392	12036		4356			
F	17	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)		TON	1058	782		276			
F	17	2360.509	TYPE SP 9.5 NON WEARING COURSE MIXTURE (2,B)		TON	30	30					
F	17	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (4,B)		TON	4649	3225		1424			
F	17	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (4,F)		TON	6198	4300		1898			
F	17	2360.609	POROUS PAVEMENT		TON	30	30					
Z	S1	2401.508	STEEL FABRIC		POUND	70	70					
		2401.518	RAISED MEDIAN CONCRETE (3S52)	(1)	SQ FT	900	900					
I	18	2401.607	SIDEWALK CONCRETE (3F52)		CU YD	23	23					
Z	S1	2402.508	STRUCTURAL STEEL (3306)		POUND	1036	1036					
Z	S1	2402.508	STRUCTURAL STEEL (3309)		POUND	11544	11544					
T	L2	2411.502	CONCRETE FOOTING		EACH	5		4				1
T	L2	2411.502	CONCRETE FOOTING TYPE 1		EACH	14	14					

SEE SHEET 9 FOR PLAN NOTES

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Jenny Kt

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED AMR
DRAWN BAU
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STATEMENT OF ESTIMATED QUANTITIES

SHEET 4 OF 359

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STATEMENT OF ESTIMATED QUANTITIES

TAB	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	NOTES	UNIT	TOTAL QUANTITY	S.P. 1008-87, S.P. 196-010-017 T.H. 41 ROADWAY QUANTITY	S.P. 196-010-018 T.H. 41 LANDSCAPING QUANTITY	S.P. 196-020-014 C.S.A.H. 61 ROADWAY QUANTITY	S.P. 196-020-014 C.S.A.H. 61 STORM SEWER QUANTITY	S.P. 1008-87 100% MNDOT QUANTITY	NON-PART 100% CITY QUANTITY
I	18	2411.502	CONCRETE STAIRWAY		EACH	4	4					
BB	B2	2411.507	STRUCTURAL CONCRETE (1G52)		CU YD	14	14					
L,BB	167,B2	2411.507	STRUCTURAL CONCRETE (3B52)		CU YD	207	207					
Z	S1	2411.507	STRUCTURAL CONCRETE (3G52)		CU YD	17	17					
Z,BB	S1,B2	2411.508	REINFORCEMENT BARS		POUND	2007	2007					
L,BB	167,B2	2411.508	REINFORCEMENT BARS (EPOXY COATED)		POUND	13594	13594					
BB	B2	2411.601	STRUCTURE EXCAVATION		LUMP SUM	1	1					
		2411.603	CONCRETE PLANTER WALL	(14)	LIN FT	34	34					
		2411.603	CONCRETE STEPS-DESIGN SPECIAL	(19)	LIN FT	18		18				
		2411.604	CONSTRUCT STONE RETAINING WALL	(17)	SQ YD	10	10					
		2411.604	MODULAR BLOCK RETAINING WALL	(18)	SQ YD	24			24			
BB	B2	2411.618	ANTI-GRAFFITI COATING		SQ FT	4139	4139					
L,BB	167,B2	2411.618	ARCHITECTURAL CONCRETE TEXTURE (BRICK)		SQ FT	679	679					
BB	B2	2412.503	14X8 PRECAST CONCRETE BOX CULVERT		LIN FT	143	143					
BB	B2	2451.507	COARSE FILTER AGGREGATE (CV)		CU YD	649	649					
		2451.603	GRANULAR BEDDING	(7)	LIN FT	4000						4000
BB	B2	2452.601	STEEL SHEET PILING (TEMPORARY)		LUMP SUM	1	1					
L	167	2452.618	STEEL SHEET PILING (PERMANENT)		SQ FT	24856	24856					
T	L2	2475.503	ORNAMENTAL METAL RAILING		LIN FT	1086		1086				
T	L2	2475.503	ORNAMENTAL METAL RAILING TYPE SPECIAL		LIN FT	356		311				45
Z	S1	2475.503	STRUCTURAL TUBE RAILING		LIN FT	145	145					
		2475.503	PIPE RAILING DESIGN SPECIAL	(19)	LIN FT	10		10				
L,BB	167,B2	2475.503	ORNAMENTAL METAL RAILING DESIGN T-4 PC	(12)	LIN FT	906	906					
N	221	2501.502	15" RC PIPE APRON		EACH	1				1		
N	221	2501.502	24" RC PIPE APRON		EACH	3				3		
N	221	2501.502	65" SPAN RC PIPE-ARCH APRON		EACH	1				1		
BB	B2	2502.503	6" TP PIPE DRAIN		LIN FT	33	33					
N	218-220	2502.503	6" PVC PIPE DRAIN		LIN FT	878	401					477
N	218-220	2502.503	8" PVC PIPE DRAIN		LIN FT	188	188					
N	218-220	2502.503	12" PVC PIPE DRAIN		LIN FT	291	291					
S,BB	17,B2	2502.503	4" PERF TP PIPE DRAIN		LIN FT	7276	5246		2030			
S	17	2502.503	4" PERF PVC PIPE DRAIN		LIN FT	300	300					
S	17	2502.503	4" PERF PE PIPE DRAIN		LIN FT	1850	1850					
N	218-220	2502.503	6" PERF PE PIPE DRAIN		LIN FT	82						82
S	17	2502.602	4" PVC PIPE DRAIN CLEANOUT		EACH	13	13					
N	218-220	2502.602	6" PVC PIPE DRAIN CLEANOUT		EACH	5	2					3
N	218-220	2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS V		LIN FT	259						259
N	218-221	2503.503	15" RC PIPE SEWER DESIGN 3006 CLASS V		LIN FT	2832	2119			282		431
N	218-221	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS V		LIN FT	420	145			255		20
N	218-221	2503.503	24" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	1056	905			151		
N	218-220	2503.503	27" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	65	65					
N	218-221	2503.503	30" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	1738	1402			336		
N	218-221	2503.503	36" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	522	137			385		
N	221	2503.503	42" RC PIPE SEWER DESIGN 3006 CLASS III		LIN FT	57				57		
N	218-220	2503.503	36" SPAN RC PIPE - ARCH SEWER CL IIIA		LIN FT	165	165					
N	221	2503.503	65" SPAN RC PIPE - ARCH SEWER CL IIIA		LIN FT	772				772		
R	238	2503.602	RECONNECT SANITARY SEWER SERVICE	(3)	EACH	24						24
Q	238	2503.602	CONNECT TO EXISTING SANITARY SEWER		EACH	6						6
Q	238	2503.602	CONNECT TO EXISTING MANHOLES (SAN)		EACH	5						5

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AMR	BAU	DMK

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STATEMENT OF ESTIMATED QUANTITIES

SHEET 5 OF 359

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STATEMENT OF ESTIMATED QUANTITIES

TAB	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	NOTES	UNIT	TOTAL QUANTITY	S.P. 1008-87, S.P. 196-010-017 T.H. 41 ROADWAY QUANTITY	S.P. 196-010-018 T.H. 41 LANDSCAPING QUANTITY	S.P. 196-020-014 C.S.A.H. 61 ROADWAY QUANTITY	S.P. 196-020-014 C.S.A.H. 61 STORM SEWER QUANTITY	S.P. 1008-87 100% MNDOT QUANTITY	NON-PART 100% CITY QUANTITY
N	218-221	2503.602	CONNECT TO EXISTING STORM SEWER		EACH	21	12			6		3
R	238	2503.602	CONNECT SEWER SERVICE		EACH	4						4
N	218-221	2503.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE		EACH	5	4					1
Q	238	2503.602	10" PIPE PLUG		EACH	1						1
R	238	2503.602	6" CLEAN-OUT ASSEMBLY		EACH	2						2
R	238	2503.602	8"X4" PVC WYE		EACH	25						25
N	218-221	2503.603	TRENCH DRAIN		LIN FT	70	20					50
N	218-220	2503.603	8" FORCEMAIN HDPE PIPE SEWER		LIN FT	50	50					
Q	238	2503.603	8" PVC PIPE PIPE SEWER		LIN FT	1626						1626
Q	238	2503.603	8" PVC PIPE PIPE SEWER (C900)		LIN FT	32						32
Q	238	2503.603	10" PVC PIPE PIPE SEWER		LIN FT	219						219
Q	238	2503.603	12" PVC PIPE PIPE SEWER		LIN FT	100						100
R	238	2503.603	4" PVC SANITARY SERVICE PIPE		LIN FT	1074						1074
O	237	2503.603	20" STEEL CASING PIPE		LIN FT	50						50
O	237	2503.603	24" STEEL CASING PIPE		LIN FT	75						75
R	238	2503.603	4" HDPE PIPE SEWER-DIRECTIONAL DRILLED		LIN FT	287						287
Q	238	2503.603	8" HDPE PIPE SEWER-DIRECTIONAL DRILLED		LIN FT	214						214
		2504.601	TEMPORARY WATER SERVICE		LUMP SUM	1						1
P	237	2504.602	RECONNECT WATER SERVICE		EACH	4						4
O	237	2504.602	CONNECT TO EXISTING WATERMAIN		EACH	16						16
P	237	2504.602	CONNECT TO EXISTING WATER SERVICE	(3)	EACH	23						23
O	237	2504.602	HYDRANT		EACH	5						5
P	237	2504.602	1" CORPORATION STOP		EACH	4						4
O	237	2504.602	1.5" CORPORATION STOP		EACH	1						1
P	237	2504.602	4" GATE VALVE & BOX		EACH	19						19
O,P	237	2504.602	6" GATE VALVE & BOX		EACH	7						7
O,P	237	2504.602	8" GATE VALVE & BOX		EACH	16						16
O	237	2504.602	12" GATE VALVE & BOX		EACH	3						3
P	237	2504.602	1" SADDLE		EACH	4						4
P	237	2504.602	1.5" SADDLE		EACH	1						1
P	237	2504.602	1" CURB STOP & BOX		EACH	4						4
P	237	2504.602	1.5" CURB STOP & BOX		EACH	1						1
P	237	2504.603	1" TYPE PE PIPE		LIN FT	416						416
P	237	2504.603	1-1/2" TYPE PE PIPE		LIN FT	211						211
P	237	2504.603	1" TYPE PE PIPE (DIRECTIONAL DRILLED)		LIN FT	44						44
P	237	2504.603	1.5" TYPE PE PIPE (DIRECTIONAL DRILLED)		LIN FT	56						56
P	237	2504.603	4" HDPE PIPE (DIRECTIONAL DRILLED)		LIN FT	257						257
P	237	2504.603	4" PVC WATERMAIN	(4)	LIN FT	537						537
O,P	237	2504.603	6" PVC WATERMAIN	(4)	LIN FT	242						242
O,P	237	2504.603	8" PVC WATERMAIN	(4)	LIN FT	2501						2501
O	237	2504.603	12" PVC WATERMAIN	(4)	LIN FT	308						308
O	237	2504.604	4" INSULATION		SQ YD	70						70
O,P	237	2504.608	DUCTILE IRON FITTINGS		POUND	9360						9360
N	218-221	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN N		EACH	34	29			5		
M,N,Q	218-222,238	2506.502	CASTING ASSEMBLY		EACH	184	118			31		35
N	218-221	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020		LIN FT	351	250			56		45
N	218-221	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 60-4020		LIN FT	154	123			31		
N	218-221	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 72-4020		LIN FT	92	88			4		
N	218-221	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 84-4020		LIN FT	11	11					
N	221	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 96-4020		LIN FT	27				27		
N	218-221	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 108-4020		LIN FT	12	6			6		
		2506.601	CONSTRUCT LIFT STATION		LUMP SUM	1	1					
		2506.601	INFILTRATION/FILTRATION SYSTEM	(22)	LUMP SUM	1	1					

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STATEMENT OF ESTIMATED QUANTITIES

SHEET 6 OF 359

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STATEMENT OF ESTIMATED QUANTITIES

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N,Q	218-221,238	2506.602	ADJUST FRAME AND RING CASTING		EACH	21	8			7		6
N	218-221	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1		EACH	14	3					11
N	218-220	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 2		EACH	21	14					7
M	222	2506.602	CASTING ASSEMBLY SPECIAL		EACH	22						22
M	222	2506.602	CASTING ASSEMBLY SPECIAL 1		EACH	2						2
Q	238	2506.603	CONSTRUCT 8" OUTSIDE DROP		LIN FT	8						8
Q	238	2506.603	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 3		LIN FT	129						129
Q	238	2506.603	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 4		LIN FT	23						23
Q	238	2506.603	CONSTRUCT 8" INSIDE DROP		LIN FT	4						4
BB	B2	2511.504	GEOTEXTILE FILTER TYPE 4	(19)	SQ YD	1090	930	160				
N	221	2511.504	GEOTEXTILE FILTER TYPE 7	(5)	SQ YD	48				48		
		2511.507	RANDOM RIPRAP CLASS II	(19)	CU YD	160		160				
N	221	2511.507	RANDOM RIPRAP CLASS III		CU YD	70				70		
I	18	2521.518	4" CONCRETE WALK		SQ FT	20958	12257		8701			
I	18	2521.518	6" CONCRETE WALK	(1)	SQ FT	85086	72105		12981			
I	18	2521.518	7" CONCRETE WALK		SQ FT	9735	9735					
F	17	2521.518	3" BITUMINOUS WALK		SQ FT	8985	8474		511			
I	18	2521.602	DRILL AND GROUT REINFORCEMENT BAR (EPOXY COATED)		EACH	1030	864		166			
T	L2	2521.618	BRICK WALK		SQ FT	23458		21210				2248
I	18	2531.503	CONCRETE CURB AND GUTTER DESIGN B412		LIN FT	333	333					
I	18	2531.503	CONCRETE CURB AND GUTTER DESIGN B612		LIN FT	11276	9097		2179			
I	18	2531.503	CONCRETE CURB AND GUTTER DESIGN B418		LIN FT	98			98			
I	18	2531.503	CONCRETE CURB AND GUTTER DESIGN B618		LIN FT	630	63		567			
I	18	2531.503	CONCRETE CURB AND GUTTER DESIGN B624		LIN FT	6493	4390		2103			
T	L2	2531.503	CONCRETE CURB DESIGN SPECIAL		LIN FT	2759		2496				263
I	18	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	12	12					
I	18	2531.504	7" CONCRETE DRIVEWAY PAVEMENT		SQ YD	61	61					
I	18	2531.504	8" CONCRETE DRIVEWAY PAVEMENT		SQ YD	621	473		148			
		2531.602	RECONSTRUCT PEDESTRIAN CURB RAMP	(10)	EACH	1	1					
I	18	2531.603	CONCRETE SILL		LIN FT	13521	10959		2562			
I	18	2531.603	CONCRETE CURB DESIGN V6 (MODIFIED)		LIN FT	235	235					
I	18	2531.603	CONCRETE CURB DESIGN V		LIN FT	318	217		101			
I	18	2531.604	6" CONCRETE VALLEY GUTTER		SQ YD	12	12					
J	19	2531.618	TRUNCATED DOMES		SQ FT	1345	1094		251			
X	TC3	2533.503	PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337		LIN FT	150	150					
		2540.602	DUMPSTER ENCLOSURE		EACH	4		3	1			
T	L2	2540.602	BICYCLE RACK		EACH	33		31				2
T	L2	2540.602	WASTE RECEPTACLE		EACH	13		12				1
T	L2	2540.602	BOLLARD	(6)	EACH	89		75				14
T	L2	2540.602	BENCH		EACH	18		17				1
		2540.602	BRIDGE PLAQUE	(19)	EACH	2		2				
T	L2	2540.602	MASONRY PILLAR		EACH	75		69				6
T	L2	2540.602	MASONRY PILLAR TYPE 1		EACH	6		4				2
		2540.602	MASONRY WALL	(19)	EACH	1		1				
T	L2	2540.603	MASONRY SEAT WALL		LIN FT	258		241				17
AA	18	2540.618	BRICK PAVERS		SQ FT	350	350					
AA	18	2540.618	INSTALL BRICK PAVERS		SQ FT	1287	1287					
W	341	2545.501	LIGHTING SYSTEM "A"		LUMP SUM	1	1					
W	341	2545.501	LIGHTING SYSTEM "B"		LUMP SUM	1	1					

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STATEMENT OF ESTIMATED QUANTITIES

SHEET 7 OF 359

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W	341	2545.501	LIGHTING SYSTEM "C"		LUMP SUM	1	0.4		0.6			
W	341	2545.501	LIGHTING SYSTEM "D"		LUMP SUM	1	1					
W	341	2545.501	LIGHTING SYSTEM "E"		LUMP SUM	1						1
W	341	2545.501	LIGHTING SYSTEM "F"		LUMP SUM	1						1
L,BB	167,B2	2545.501	CONDUIT SYSTEM		LUMP SUM	1	1					
W	341	2545.602	REFINISH LIGHT STANDARD		EACH	6						6
Y	SZ1	2550.502	OUTDOOR FIBER SPLICE ENCLOSURE		EACH	3					3	
Y	SZ1	2550.502	BURIED CABLE SIGN		EACH	2					2	
Y	SZ1	2550.503	2" RIGID STEEL CONDUIT		LIN FT	90					90	
Y	SZ1	2550.503	1" NON-METALLIC CONDUIT		LIN FT	1392					1392	
Y	SZ1	2550.503	1.5" NON-METALLIC CONDUIT		LIN FT	3082					3082	
Y	SZ1	2550.601	FIBER OPTIC CABLE TESTING		LUMP SUM	1					1	
Y	SZ1	2550.602	FIBER OPTIC PIGTAIL TERMINATION		EACH	3					3	
Y	SZ1	2550.602	FIBER OPTIC CABLE SPLICING		EACH	4					4	
Y	SZ1	2550.602	PULL VAULT		EACH	5					5	
Y	SZ1	2550.603	ARMORED FIBER OPTIC PIGTAIL CABLE 6SM		LIN FT	957					957	
Y	SZ1	2550.603	FIBER OPTIC TRUNK CABLE 36SM		LIN FT	4088					4088	
Y	SZ1	2550.603	1.5" BORED CONDUIT		LIN FT	240					240	
H	18	2554.502	ANCHORAGE ASSEMBLY - TYPE 31		EACH	1			1			
H	18	2554.502	END TREATMENT - TANGENT TERMINAL		EACH	1			1			
H	18	2554.503	TRAFFIC BARRIER DESIGN TYPE 31		LIN FT	38			38			
H	18	2554.503	TRAFFIC BARRIER DESIGN TRANSITION TYPE 31		LIN FT	25			25			
		2563.601	TRAFFIC CONTROL SUPERVISOR		LUMP SUM	1	0.58	0.15	0.12	0.04	0.01	0.1
		2563.601	TRAFFIC CONTROL		LUMP SUM	1	0.58	0.15	0.12	0.04	0.01	0.1
		2563.601	ALTERNATE PEDESTRIAN ROUTE		LUMP SUM	1	0.58	0.15	0.12	0.04	0.01	0.1
X	TC3	2563.602	TEMPORARY PEDESTRIAN RAMP		EACH	10	10					
X	TC3	2563.602	PEDESTRIAN CHANNELIZER		LIN FT	5000	5000					
		2563.602	VEHICLE SPEED FEEDBACK SIGN	(21)	EACH	1	1					
X	TC3	2563.613	PORTABLE CHANGEABLE MESSAGE SIGN		UDAY	56	56					
X	TC3	2563.613	AUDIBLE MESSAGE DEVICE		UDAY	2970	2970					
X	TC3	2563.613	CONSTRUCTION SIGN-SPECIAL		SQ FT	300	300					
X	TC3	2563.613	TEMPORARY WALKWAY SURFACE		SQ FT	300	300					
U	259	2564.602	INSTALL SIGN PANEL		EACH	4			4			
U	259	2564.602	INSTALL SIGN		EACH	14	13		1			
U	259	2564.618	DELINEATOR/MARKER		EACH	3	1		2			
U	259	2564.618	DELINEATOR/MARKER PANEL		EACH	20	11		9			
U	259	2564.618	SIGN		SQ FT	785	560		225			
		2565.501	EMERGENCY VEHICLE PREEMPTION SYSTEM C		LUMP SUM	1	0.5		0.5			
		2565.501	EMERGENCY VEHICLE PREEMPTION SYSTEM D		LUMP SUM	1			1			
		2565.501	EMERGENCY VEHICLE PREEMPTION SYSTEM E		LUMP SUM	1	1					
		2565.516	TRAFFIC CONTROL SIGNAL SYSTEM C		SYSTEM	1	0.5		0.5			
		2565.516	TRAFFIC CONTROL SIGNAL SYSTEM D		SYSTEM	1			1			
		2565.516	TRAFFIC CONTROL SIGNAL SYSTEM E		SYSTEM	1	1					
		2565.616	REVISE SIGNAL SYSTEM A		SYSTEM	1	1					
		2565.616	REVISE SIGNAL SYSTEM B		SYSTEM	1	1					
C	13	2572.503	TEMPORARY FENCE		LIN FT	595	575		20			
C	13	2572.503	CLEAN ROOT CUTTING		LIN FT	200	190		10			
		2573.501	STABILIZED CONSTRUCTION EXIT		LUMP SUM	1	1					

SEE SHEET 9 FOR PLAN NOTES

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REV.	BY	DATE

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED AMR
DRAWN BAU
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STATEMENT OF ESTIMATED QUANTITIES

SHEET 8 OF 359

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STATEMENT OF ESTIMATED QUANTITIES

TAB	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	NOTES	UNIT	TOTAL QUANTITY	S.P. 1008-87, S.P. 196-010-017 T.H. 41 ROADWAY QUANTITY	S.P. 196-010-018 T.H. 41 LANDSCAPING QUANTITY	S.P. 196-020-014 C.S.A.H. 61 ROADWAY QUANTITY	S.P. 196-020-014 C.S.A.H. 61 STORM SEWER QUANTITY	S.P. 1008-87 100% MNDOT QUANTITY	NON-PART 100% CITY QUANTITY
		2573.501	EROSION CONTROL SUPERVISOR		LUMP SUM	1	1					
K	20	2573.502	STORM DRAIN INLET PROTECTION		EACH	175	140		35			
K	20	2573.502	CULVERT END CONTROLS		EACH	1			1			
K	20	2573.503	SILT FENCE, TYPE MS		LIN FT	1560	704		856			
K	20	2573.503	FLOTATION SILT CURTAIN TYPE MOVING WATER		LIN FT	22			22			
K	20	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER		LIN FT	540	374		166			
K	20	2574.505	SUBSOILING (P)		ACRE	2	1		1			
K	20	2574.505	SOIL BED PREPARATION (P)		ACRE	2	1		1			
T	L2	2574.507	ROOTING TOPSOIL BORROW		CU YD	1774		1562				212
K	20	2574.508	FERTILIZER TYPE 3		POUND	392	140		252			
K	20	2574.508	FERTILIZER TYPE 4		POUND	15			15			
T	L2	2575.504	SODDING TYPE SALT TOLERANT		SQ YD	363			25			338
K	20	2575.504	ROLLED EROSION PREVENTION CATEGORY 25		SQ YD	5841	1872		3969			
K	20	2575.504	RAPID STABILIZATION METHOD 4		SQ YD	483			483			
K	20	2575.505	SEEDING (P)		ACRE	2	1		1			
K	20	2575.505	MOWING		ACRE	4	2		2			
K	20	2575.505	WEED SPRAYING		ACRE	1.4	0.8		0.6			
K	20	2575.506	WEED SPRAYING MIXTURE		GALLON	0.7	0.4		0.3			
K	20	2575.508	SEED MIXTURE 25-131		POUND	242	84		158			
K	20	2575.508	SEED MIXTURE 25-151		POUND	2	2					
K	20	2575.508	SEED MIXTURE 35-241		POUND	4			4			
K	20	2575.508	HYDRAULIC REINFORCED FIBER MATRIX		POUND	49	49					
K	20	2575.523	RAPID STABILIZATION METHOD 3		MGALLON	14	8		6			
V	260	2582.503	4" SOLID LINE PAINT		LIN FT	2675	2675					
V	260	2582.503	4" SOLID LINE MULTI-COMPONENT		LIN FT	2775	2675		100			
V	260	2582.503	4" DOUBLE SOLID LINE MULTI-COMPONENT		LIN FT	250	200		50			
V	260	2582.503	4" SOLID LINE MULTI-COMPONENT GR IN (WR)		LIN FT	13815	8405		5410			
V	260	2582.503	6" SOLID LINE MULTI-COMPONENT GR IN (WR)		LIN FT	7360	7360					
V	260	2582.503	8" SOLID LINE MULTI-COMPONENT GR IN (WR)		LIN FT	115	115					
V	260	2582.503	4" BROKEN LINE MULTI-COMPONENT GR IN (WR)		LIN FT	620	250		370			
V	260	2582.503	4" DOTTED LINE MULTI-COMPONENT GR IN (WR)		LIN FT	70	70					
V	260	2582.503	8" DOTTED LINE MULTI-COMPONENT GR IN (WR)		LIN FT	40	40					
V	260	2582.503	4" DOUBLE SOLID LINE MULTI-COMPONENT GR IN (WR)		LIN FT	1660	1660					
V	260	2582.503	24" SOLID LINE PREF THERMO GR IN		LIN FT	770	730		40			
V	260	2582.503	24" SOLID LINE PREF THERMO GR IN ESR		LIN FT	420	420					
V	260	2582.518	PAVT MSSG PAINT		SQ FT	54	54					
V	260	2582.518	PAVT MSSG MULTI-COMPONENT		SQ FT	146	54		92			
V	260	2582.518	PAVT MSSG PREF THERMO GR IN		SQ FT	517	408		109			
V	260	2582.518	CROSSWALK PREF THERMO GR IN ESR		SQ FT	4170	2350		1820			

(P) DENOTES PLAN QUANTITY

NOTES:

(1) SEE APPROACH PANEL PLANS
(2) PIPE MATERIAL SDR 35
(3) 4 ARE PLUMBED CONNECTIONS
(4) PIPE MATERIAL C900
(5) GEOTEXTILE FILTER TO BE USED WITH RANDOM RIPRAP CLASS III
(6) 1 BOLLARD IS LOCATED IN THE 2ND TO 3RD ST PARKING LOT, SEE PARKING LOT PLANS
(7) 4000 LF FOR SANITARY SEWER
(8) USE AS NEEDED FOR PATCHING IN PARKING LOTS
(9) RESIDENTIAL PROPERTY ON SOUTH SIDE OF 5TH STREET. SEE REMOVAL PLAN.
(10) LOCATED IN THE 2ND TO 3RD ST ALLEY, SEE PARKING LOT PLANS
(11) PIPE IS SCHEDULE 40
(12) SEE CONSTRUCTION PLAN FOR RAILING ALONG SIDEWALK, STA 99+98 TO 100+48, 50 LF
(13) FOR USE AT THE DISCRETION OF THE ENGINEER FOR MINOR EXTRA WORK ITEMS
(14) PLANTER WALL LOCATED IN NW CORNER OF TH 41 AND CSAH 61 AT CHASKA CURLING CENTER. SEE MISCELLANEOUS DETAIL SHEET 30.
(15) RELOCATION OF THE DOLCE VITA SIGN IN THE SW CORNER OF TH 41 AND CSAH 61
(16) DEWATERING FOR UNDERPASS CONSTRUCTION. DEWATERING FOR PUBLIC UTILITY INSTALLATION IS INCIDENTAL.
(17) STONE RETAINING WALL IN THE 2ND TO 3RD ST PARKING LOT
(18) MODULAR BLOCK RETAINING WALL ALONG THE INFILTRATION BASIN ON TH 61
(19) SEE STREETSCAPE PLANS FOR LOCATIONS
(20) SALVAGE VEHICLE SPEED FEEDBACK SIGNS TO CITY. SEE SIGNING PLAN .
(21) TO BE PLACED ON NB TH 41, SOUTH OF THE RIVER BRIDGE
(22) CSAH 61 BIOFILTRATION BASIN
(23) ABANDON MANHOLE AND SANITARY SEWER NEAR BUILDING 501 - SEE REMOVAL PLANS
(24) SEE REMOVAL PLANS FOR RETAINING WALL HEIGHTS
(25) SEE REMOVAL PLAN SHEET 102 FOR LOCATIONS

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SHEET 9 OF 359

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SOILS AND CONSTRUCTION NOTES

1. SUITABLE GRADING MATERIAL (COMMON EMBANKMENT) ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL, AND OTHER UNSTABLE EXCAVATION MATERIAL. EXISTING AGGREGATE AND TOPSOIL SHALL BE SALVAGED AND REUSED IN NEW CONSTRUCTION WHERE POSSIBLE. SEE MN/DOT'S SPECIFICATION 2106.

2. PROVIDE A FULL DEPTH SAWCUT WHERE PLACING NEW PAVEMENT NEXT TO INPLACE PAVEMENT TO ENSURE A UNIFORM JOINT.

3. NO EXTRA PAYMENT WILL BE MADE FOR STOCKPILING CONSTRUCTION MATERIAL OR RECYCLED MATERIAL.

4. IN ANY CASE WHERE GRANULAR EMBANKMENTS OR BACKFILL JOIN NON-GRANULAR SOIL EMBANKMENTS OR BACKFILL, PROVIDE A 1(V):20(H) TRANSITION TAPER BETWEEN THE CHANGES IN MATERIAL TO PREVENT AN ABRUPT SOILS DIFFERENTIAL. THE 1(V):20(H) TAPER SHALL BE CONSTRUCTED SO THAT THE GRANULAR BACKFILL MATERIAL OVERLAYS THE ADJACENT NON-GRANULAR SOIL BACKFILL.

5. WHERE CONNECTING NEW SURFACING ADJACENT TO ANY INPLACE PAVEMENTS TO BE WIDENED, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER,THEN AT A 2(V):1(H) SLOPE TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.

6. TRAFFIC LANES TO BE USED DURING CONSTRUCTION MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE ADJACENT EXCAVATION. THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY PROJECTING 1(V):2(F) OR GREATER (FLATTER) SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND THE BOTTOM OF THE EXCAVATION.

7. ALL DISTURBED ROADWAY MATERIALS SUCH AS CONCRETE, BITUMINOUS, AND AGGREGATES MAY BE UTILIZED ACCORDING TO MN/DOT SPECIFICATIONS AND PROJECT SPECIAL PROVISIONS. MATERIALS NOT UTILIZED ON THIS PROJECT WILL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OFF THE RIGHT OF WAY IN ACCORDANCE WITH MN/DOT SPECIFICATION 2104 AND AS AGREED UPON BY ENGINEER.

8. CONTRACTOR SHALL PROVIDE TACK COAT BETWEEN ALL BITUMINOUS LAYERS AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING PAVEMENT IN ACCORDANCE WITH SPECIFICATION 2357 (INCIDENTAL).

9. WHERE CONNECTING TO EXISTING ROADWAYS AT THE TERMINI OF PROPOSED CONSTRUCTION, CUT VERTICALLY TO THE BOTTOM OF THE EXISTING SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGNS, WHICHEVER IS DEEPER, THEN AT A 1:20 (V:H) TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.

10. WHERE MATCHING INTO IN-PLACE CROSSROADS, CUT VERTICALLY TO THE BOTTOM OF IN-PLACE SURFACING, THEN AT A 1V:4H SLOPE TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.

11. PROVIDE A SAWCUT WHERE PLACING NEW PAVEMENT NEXT TO IN-PLACE PAVEMENT TO ENSURE A UNIFORM JOINT.

12. THIS IS A REMINDER THAT UNDER STATE LAW IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE CALL.

13. JOINT ADHESIVE SHALL BE USED ON LONGITUDINAL CONSTRUCTION JOINTS OF THE FINAL LIFT OF HMA PAVEMENT WHERE AN ADJACENT BITUMINOUS PAVEMENT WILL BE CONSTRUCTED, BETWEEN BITUMINOUS PAVEMENT AND CONCRETE PAVEMENT, AND BETWEEN BITUMINOUS PAVEMENT AND CONCRETE CURB AND GUTTER. WORK IS DONE IN ACCORDANCE WITH THE MOST RECENT SPECIAL PROVISION (2331) PAVEMENT JOINT ADHESIVE.

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

STANDARD PLATES

PLATE NO.	DESCRIPTION
3000M	REINFORCED CONCRETE PIPE (6 SHEETS)
3006H	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3014K	REINFORCED CONCRETE PIPE ARCH (3 SHEETS)
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3131C	PRECAST CONCRETE HEADWALL FOR SUBSURFACE DRAINS
3132A	GRATE FOR 1:4 PRECAST CONCRETE APRONS
3133D	RIPRAP AT RCP OUTLETS
4003B	30" PRECAST CATCH BASIN - DESIGN N
4005M	MANHOLE OR CATCH BASIN TYPE A & B CONE SECTIONS PRECAST - DESIGN F
4006L	MANHOLE OR CATCH BASIN PRECAST - DESIGNS G AND H
4011E	PRECAST CONCRETE BASE
4018B	MANHOLE OR CATCH BASIN (REDUCER CONE SECTION PRECAST) - DESIGN D
4020J	MANHOLE OR CATCH BASIN (FOR USE WITH OR WITHOUT TRAFFIC LOADS) (2 SHEETS)
4021F	PRECAST CURB OPENING CATCH BASIN
4022A	MANHOLE OR CATCH BASIN COVER (3 ft. X 2 ft. OPENING)
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
4110F	COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS) - CASTING NO. 715 AND 716
4125D	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO. 806
4143E	STOOL GRATE & CONCRETE FRAME (MEDIAN DRAINS) - CASTING NO. 731
4154B	CATCH BASIN GRATE CASTING - CASTING NO. 816
4180J	MANHOLE OR CATCH BASIN STEP
7020K	CONCRETE CURB (DESIGN B, DESIGN V, DESIGN S, DESIGN DR AND DESIGN BR)(2 SHEETS)
7038A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
7100H	CONCRETE CURB AND GUTTER (DESIGN B and DESIGN V)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)
7113A	CONCRETE APPROACH NOSE DETAIL
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)
8106D	EQUIPMENT PAD B
8112I	PEDESTAL FOUNDATION (TRAFFIC CONTROL SIGNALS)
8119C	GROUND MOUNTED CABINET FOUNDATION
8120Q	POLE FOUNDATION (PA85)
8121H	TRANSFORMER BASE AND POLE BASE PLATE (PA85, PA90 AND PA100) (2 SHEETS)
8122F	PEDESTAL AND PEDESTAL BASE (FOR TRAFFIC CONTROL SIGNALS SUPPORT) (2 SHEETS)
8123G	POLE AND MAST ARM - LUMINAIRES AND TRAFFIC LIGHTS ASSEMBLY (FOR ALL POLE TYPES) (2 SHEETS)
8126L	POLE FOUNDATION (PA90 AND PA100)
8129A	SHIM AND WASHER (TRAFFIC CONTROL SIGNALS AND ROADWAY LIGHTING)
8150C	INSTALLATION OF CULVERT MARKERS
8337D	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER (TYPE "F") (3 SHEETS)

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G	17	AGGREGATE SUMMARY
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W	341	PERMANENT LIGHTING
X	TC3	TEMPORARY TRAFFIC CONTROL
Y	SZ1	TMS
Z	S1	PLATFORM REPLACEMENT
AA	18	BRICK PAVERS
BB	B2	SCHEDULE OF QUANTITES FOR ENTIRE BRIDGE

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TABULATION INDEX, STANDARD PLATES & NOTES

SHEET 10 OF 359

EARTHWORK	A	
STATION	2106	
	EXCAVATION - COMMON (P) (1)	COMMON EMBANKMENT (CV) (P) (2)
	CU YD	CU YD
TH 41: S.P. 1008-87, S.P. 196-010-017		
94+05.00		
94+50.00	285.2	5.9
95+00.00	372.4	0.6
95+50.00	393.1	0.9
96+00.00	397.4	0.8
96+50.00	385.7	1.3
97+00.00	320.7	3.8
97+60.00	481.8	3.6
98+00.00	314.0	0.1
98+50.00	281.0	2.5
98+65.00	99.4	0.8
99+00.00	223.8	2.2
99+17.50	100.4	1.2
99+50.00	177.7	2.9
99+80.00	135.9	5.1
100+00.00	77.1	5.8
100+25.00	97.3	8.9
100+50.00	90.9	7.9
101+00.00	178.3	11.6
101+50.00	281.0	4.0
102+00.00	310.1	3.4
102+50.00	247.6	5.7
103+00.00	235.8	5.2
103+50.00	234.9	5.6
104+00.00	236.6	5.5
104+50.00	239.8	3.7
105+00.00	280.3	2.3
105+30.00	235.0	0.8
105+50.00	172.5	0.1
106+00.00	355.0	2.3
106+50.00	303.2	4.7
107+00.00	289.6	8.8
107+20.00	112.9	3.1
107+50.00	156.2	2.3
108+00.00	257.5	5.1
108+45.00	256.2	3.7
109+10.00	702.8	1.7
109+50.00	451.0	0.2
110+00.00	325.9	2.9
110+30.00	194.2	1.8
110+50.00	132.2	1.8

EARTHWORK	A	
STATION	2106	
	EXCAVATION - COMMON (P) (1)	COMMON EMBANKMENT (CV) (P) (2)
	CU YD	CU YD
TH 41: S.P. 1008-87, S.P. 196-010-017		
111+00.00	314.6	8.6
111+50.00	302.4	5.9
112+00.00	297.9	1.7
112+50.00	307.0	0.2
112+90.00	310.2	
113+50.00	466.4	1.8
114+00.00	292.2	3.1
114+50.00	322.9	1.9
115+00.00	375.3	0.3
115+25.00	185.9	
115+50.00	180.3	0.4
116+00.00	402.2	6.8
116+50.00	520.6	5.8
117+00.00	710.6	
117+50.00	691.5	
118+00.00	488.4	0.5
118+50.00	398.5	12.0
119+00.00	352.4	27.0
119+50.00	320.4	22.9
120+00.00	316.6	9.4
120+50.00	315.2	6.3
121+00.00	266.5	8.2
121+20.00	89.7	2.8
121+50.00	145.7	3.8
122+00.00	271.1	8.2
122+50.00	291.7	9.3
123+00.00	298.4	7.7
123+35.75	258.6	3.3
TOTAL	**19916**	**299**

EARTHWORK	A	
STATION	2106	
	EXCAVATION - COMMON (P) (1)	COMMON EMBANKMENT (CV) (P) (2)
	CU YD	CU YD
PEDESTRIAN UNDERPASS		
30+10.00		
30+25.00	12.7	4.7
30+50.00	34.1	14.7
30+75.00	42.6	18.2
31+00.00	64.1	15.7
31+25.00	94.6	17.2
31+50.00	113.6	17.0
31+75.00	137.5	21.5
32+00.00	158.0	29.5
32+25.00	168.3	28.4
32+50.00	183.5	26.1
32+75.00	204.9	25.1
33+00.00	225.0	24.7
33+20.00	197.1	27.4
34+65.00		
34+75.00	98.0	11.5
35+00.00	238.2	25.3
35+25.00	217.5	21.2
35+50.00	190.4	17.4
35+75.00	173.0	18.4
36+00.00	156.5	20.1
36+25.00	135.5	19.2
36+50.00	109.3	16.5
36+75.00	81.6	15.2
36+96.00	65.4	10.8
TOTAL	**3101**	**446**

(1) TOPSOIL STRIP IS INCLUDED IN THE EXCAVATION - COMMON QUANTITY.

(2) COMMON EMBANKMENT INCLUDES 6" MIN. DEPTH OF TOPSOIL.

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	BAU
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
EARTHWORK TABULATION & SUMMARY

SHEET 11 OF 359

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EARTHWORK — A

STATION	2106	
	EXCAVATION - COMMON (P) (1)	COMMON EMBANKMENT (CV) (P) (2)
	CU YD	CU YD
C.S.A.H. 61: S.P. 196-020-014		
20+50.00		
21+00.00	453.7	5.8
21+50.00	393.8	2.7
22+00.00	374.8	1.2
22+50.00	365.1	1.3
23+00.00	405.2	7.0
23+50.00	551.1	12.6
24+00.00	656.1	7.9
24+50.00	559.5	34.9
25+00.00	417.9	36.0
25+50.00	352.2	7.6
26+00.00	339.0	12.0
26+26.33	182.2	4.9
26+50.00	168.8	6.1
27+00.00	361.5	20.0
27+50.00	334.2	16.9
28+00.00	296.3	11.4
28+50.00	272.4	7.3
29+00.00	293.2	7.7
29+50.00	350.0	14.6
30+00.00	399.9	11.6
30+50.00	349.7	20.2
30+65.00	73.8	13.9
32+00.00		
32+50.00	106.8	
33+00.00	87.6	
33+50.00	68.6	
34+00.00	61.4	
34+25.00	27.3	
TOTAL	**8302**	**264**

EARTHWORK SUMMARY — A

STATION TO STATION			LOCATION	2106					NOTES
				EXCAVATION - COMMON (P) (1)	EXCAVATION - CHANNEL AND POND (P)	COMMON EMBANKMENT (CV) (P) (2)	EXCAVATION SPECIAL	HAUL AND DISPOSE OF CONTAMINATED MATERIAL	
				CU YD	CU YD	CU YD	CU YD	CU YD	
TH 41: S.P. 1008-87, S.P. 196-010-017									
94+05	TO	97+60	RT/LT	2636		17			START TO 1ST ST
97+60	TO	101+50	RT/LT	1597		37	10	10	1ST ST TO 2ND ST
101+50	TO	105+30	RT/LT	2479		48			2ND ST TO 3RD ST
101+89	TO	104+92	RT	1500					SOUTH PARKING LOT
105+30	TO	109+10	RT/LT	2606		32			3RD ST TO 4TH ST
109+10	TO	112+90	RT/LT	2635		23			4TH ST TO 5TH ST
109+55	TO	112+56	RT	1600					NORTH PARKING LOT
112+90	TO	116+50	RT/LT	2745		20	220	220	5TH ST TO C.S.A.H. 61
116+50	TO	123+35	RT/LT	5215		121	100	100	C.S.A.H. 61 TO END
117+17	TO	117+41	LT	39		12			CURLING CENTER PLANTER WALL
30+10	TO	33+20	RT/LT	1613		323			PEDESTRIAN UNDERPASS WEST
34+65	TO	37+50	RT/LT	797		221	630	630	(3) PEDESTRIAN UNDERPASS EAST
101+89	TO	104+92	RT	1250					2ND ST TO 3RD ST PARKING LOT
109+55	TO	112+56	RT	2360					4TH ST TO 5TH ST PARKING LOT
113+30	TO	115+15	RT	1025					5TH ST PARKING LOT
SUBTOTALS				**30097**		**854**	**960**	**960**	
C.S.A.H. 61: S.P. 196-020-014									
20+26	TO	22+91	RT/LT	708					DOLCE VITA PARKING LOT
20+50	TO	34+25	RT/LT	6082		264	2220	2220	(3)
24+80	TO	30+90	RT		4700			4700	DRAINAGE BASIN, ALL MATERIAL ESTIMATED TO BE CONTAMINATED
SUBTOTALS				**6790**	**4700**	**264**	**2220**	**6920**	
TOTALS				**36887**	**4700**	**1118**	**3180**	**7880**	

(1) TOPSOIL STRIP IS INCLUDED IN THE EXCAVATION - COMMON QUANTITY.

(2) COMMON EMBANKMENT INCLUDES 6" MIN. DEPTH OF TOPSOIL.

(3) EXCAVATION SPECIAL QUANTITY HAS BEEN SUBTRACTED FROM EXCAVATION - COMMON TABULATED TOTALS. THIS INCLUDES THE EAST SIDE OF THE PEDESTRIAN UNDERPASS AND CR 61 ROADWAY AREAS. CONTAMINATED MATERIAL IS LOCATED WITHIN THE DEPTH OF ROADWAY, TRAIL, AND SIDEWALK GRADING AREAS.

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EARTHWORK TABULATION & SUMMARY

SHEET 12 OF 359

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CLEARING AND GRUBBING — B

ROADWAY	STATION	LOCATION	2101 CLEARING EACH	2101 GRUBBING EACH
TH 41: S.P. 1008-87, S.P. 196-010-017				
T.H. 41	94+82	LT	1	1
	95+30	RT	1	1
	95+37	LT	1	1
	95+56	RT	1	1
	95+68	LT	1	1
	95+81	RT	1	1
	95+98	LT	1	1
	96+05	RT	1	1
	96+27	LT	1	1
	96+31	RT	1	1
	96+54	RT	1	1
	96+58	LT	1	1
	96+77	RT	1	1
	96+87	LT	1	1
	97+15	LT	1	1
	98+22	RT	1	1
	105+02	LT	2	2
	105+59	LT	2	2
	108+88	LT	1	1
	112+45	LT	1	1
	114+43	RT	1	1
	115+89	LT	1	1
	116+01	LT	1	1
	116+11	LT	1	1
	116+17	LT	1	1
	117+06	LT	3	3
	117+36	LT	1	1
	117+41	RT	1	1
	117+53	LT	1	1
	117+71	LT	1	1
	117+77	RT	1	1
	117+81	LT	1	1
	118+09	LT	1	1
	118+30	RT	1	1
	118+34	LT	1	1
	118+58	LT	1	1
	118+81	LT	1	1
	118+82	RT	1	1
	119+05	LT	1	1
	119+28	LT	1	1
	119+52	LT	1	1
	119+91	LT	1	1
	120+16	LT	1	1
	120+17	RT	1	1
	120+40	LT	1	1
	120+70	LT	2	2
	120+86	LT	1	1
	120+98	LT	1	1
	121+30	LT	1	1
	121+96	LT	1	1

CLEARING AND GRUBBING — B

ROADWAY	STATION	LOCATION	2101 CLEARING EACH	2101 GRUBBING EACH
PEDESTRIAN UNDERPASS	34+74	RT	1	1
	35+25	LT	1	1
	36+33	LT	1	1
2ND ST - 3RD ST PARKING LOT	102+78	RT		1
	103+11	RT		1
	104+88	RT		1
4TH ST - 5TH ST PARKING LOT	109+58	RT		1
	111+93	RT		1
	112+47	RT		1
SUBTOALS			**58**	**64**
C.S.A.H. 61: S.P. 196-020-014				
C.S.A.H. 61	21+17	LT		1
	21+68	LT		1
	21+93	LT		1
	22+44	LT		1
	22+90	RT		1
	22+94	LT		1
	24+40	RT		1
	24+55	RT		1
	24+68	RT		1
	24+84	RT		1
	24+96	RT		1
	25+09	RT		1
	25+22	RT		1
	26+28	RT		1
	26+41	RT		1
	26+52	RT		1
	26+56	RT		1
	26+82	RT		2
	26+97	RT		1
	27+12	RT		1
	27+23	RT		1
	27+32	RT		1
	27+41	RT		1
	27+90	RT		1
SUBTOALS				**25**
TOTALS			**58**	**89**

TREE PROTECTION — C

ROADWAY	STATION	LOCATION	2572 TEMPORARY FENCE LIN FT	2572 CLEAN ROOT CUTTING LIN FT
TH 41: S.P. 1008-87, S.P. 196-010-017				
T.H. 41	106+20 TO 108+15	RT	195	
	114+05	RT	20	10
	114+06	LT	20	10
	117+49	RT	20	10
	117+66	RT	20	10
	118+83	LT	20	10
	118+94	LT	20	10
	120+60	RT	20	10
	121+14	LT	20	10
	121+31	LT	20	10
	121+48	LT	20	10
	121+75	LT	20	10
	122+31	LT	20	10
PEDESTRIAN UNDERPASS	31+10	RT	20	10
2ND ST - 3RD ST PARKING LOT	103+59	RT	20	10
	104+87	RT	20	10
4TH ST - 5TH ST PARKING LOT	109+98	RT	20	10
5TH ST PARKING LOT	114+05	RT	20	10
	114+12	RT	20	10
	114+47	RT	20	10
SUBTOTALS			575	190
C.S.A.H. 61: S.P. 196-020-014				
C.S.A.H. 61	24+26	RT	20	10
SUBTOTALS			20	10
TOTALS			**595**	**200**

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QUANTITY TABULATION

SHEET 13 OF 359

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MISCELLANEOUS REMOVALS

D

ROADWAY	STATION TO STATION			SAWING CONCRETE PAVEMENT (FULL DEPTH)	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	REMOVE WATER MAIN	REMOVE SEWER PIPE (SANITARY)	REMOVE CURB AND GUTTER	REMOVE CONCRETE CURB	REMOVE RETAINING WALL	REMOVE CONCRETE RETAINING WALL	REMOVE STONE RETAINING WALL	REMOVE ORNAMENTAL RAILING	REMOVE CONCRETE DRIVEWAY PAVEMENT	REMOVE CONCRETE PAVEMENT (1) (2)	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	REMOVE BITUMINOUS PAVEMENT (2)	REMOVE BITUMINOUS WALK	REMOVE CONCRETE MEDIAN	REMOVE CONCRETE WALK
				LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	SQ YD	SQ YD	SQ YD	SQ YD	SQ FT	SQ FT	SQ FT
TH 41: S.P. 1008-87, S.P. 196-010-017																				
T.H. 41 - STA. 81+07 TO 94+05	81+07	TO	94+05		645												764	1064		
T.H. 41 - STA. 94+05 TO 2ND ST	94+05	TO	101+50		162	652	585	2325	857			84		90	27	227	4718	880		27474
T.H. 41 - 2ND ST TO 4TH ST	101+50	TO	109+14		185	955	760	2989	214					54	59	31	4831			18395
T.H. 41 - 4TH ST TO CSAH 61	109+14	TO	116+69		243	912	433	2562	146				129	48	60	113	5468			16504
T.H. 41 - CSAH 61 TO WALNUT ST	116+69	TO	123+38	102	59	45		1363	570		84		15	209	4001	15	982	1344		13426
501 BUILDING SERVICES								18												
PEDESTRIAN UNDERPASS	30+00	TO	37+06					7												
2ND ST - 3RD ST PARKING LOT	101+89	TO	104+92	24	95			47	112	71	24			28			2164			211
4TH ST - 5TH ST PARKING LOT	109+55	TO	112+56	14	195			222		84				42			1460			260
5TH ST PARKING LOT	113+30	TO	115+15		40			599									1603			1381
SUBTOTALS				**140**	**1624**	**2564**	**1778**	**10132**	**1899**	**155**	**108**	**84**	**144**	**471**	**4147**	**386**	**21990**	**3288**		**77651**
C.S.A.H. 61: S.P. 196-020-014																				
C.S.A.H. 61	20+60	TO	34+75		559	1146	151	1825	385	181			209	17	2222	126	8957	544	832	15094
DOLCE VITA PARKING LOT	20+26	TO	22+91		84			252								214	1007			
SUBTOTALS					**643**	**1146**	**151**	**2077**	**385**	**181**			**209**	**17**	**2222**	**340**	**9964**	**544**	**832**	**15094**
TOTALS				**140**	**2267**	**3710**	**1929**	**12209**	**2284**	**336**	**108**	**84**	**353**	**488**	**6369**	**726**	**31954**	**3832**	**832**	**92745**

NOTES:

(1) CR 61 CONCRETE PAVEMENT REMOVAL IS FOR 20' WIDE SLAB OF 9"-7"-9" UNREINFORCED CONCRETE UNDER EXISTING BITUMINOUS PAVEMENT. QUANTITY IS BASED ON 1000' OF ROAD LENGTH, STA 20+60 TO STA 30+60.

(2) SEE TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTHS

MISCELLANEOUS REMOVALS

D

ROADWAY	STATION TO STATION			REMOVE BOLLARDS	REMOVE WOOD POST	REMOVE LIGHTING UNIT	REMOVE MANHOLE	REMOVE GATE VALVE AND BOX	REMOVE HYDRANT	REMOVE LIGHT FOUNDATION	REMOVE BENCH	REMOVE WASTE RECEPTACLE	REMOVE DUMPSTER ENCLOSURE
				EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
TH 41: S.P. 1008-87, S.P. 196-010-017													
T.H. 41 - STA. 81+07 TO 94+05	81+07	TO	94+05										
T.H. 41 - STA. 94+05 TO 2ND ST	94+05	TO	101+50	11		13	1	6	2	13		1	
T.H. 41 - 2ND ST TO 4TH ST	101+50	TO	109+14	16		16	5	6	2	16	1	2	
T.H. 41 - 4TH ST TO CSAH 61	109+14	TO	116+69	33		13	4	7	2	13		3	
T.H. 41 - CSAH 61 TO WALNUT ST	116+69	TO	123+38	6		6				6	1	1	
501 BUILDING SERVICES							2						
PEDESTRIAN UNDERPASS	30+00	TO	37+06		2								
2ND ST - 3RD ST PARKING LOT	101+89	TO	104+92	8									1
4TH ST - 5TH ST PARKING LOT	109+55	TO	112+56	2									1
5TH ST PARKING LOT	113+30	TO	115+15			1				1			
SUBTOTALS				**76**	**2**	**49**	**12**	**19**	**6**	**49**	**2**	**7**	**2**
C.S.A.H. 61: S.P. 196-020-014													
C.S.A.H. 61	20+60	TO	34+75	14		3		2	1	3			
DOLCE VITA PARKING LOT	20+26	TO	22+91					1					
SUBTOTALS				**14**		**3**		**3**	**1**	**3**			
TOTALS				**90**	**2**	**52**	**12**	**22**	**7**	**52**	**2**	**7**	**2**

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QUANTITY TABULATION

SHEET 14 OF 359

MISCELLANEOUS REMOVALS (DRAINAGE) — E

TAMS HYDINFRA ID #	STATION TO STATION			LOCATION			2104 REMOVE PIPE APRON EACH	2104 REMOVE CASTING EACH	2104 REMOVE DRAINAGE STRUCTURE EACH	2104 REMOVE SEWER PIPE (STORM) LIN FT
TH 41: S.P. 1008-87, S.P. 196-010-017										
2381499	94+19			44 LT					1	
2248342	94+18	TO	94+19	15 RT	TO	44 LT				58
2381497	94+18			15 RT					1	
2381498	94+34			38 RT				1		
2269867	96+90	TO	97+27	40 LT	TO	21 RT				71
2381511	97+27			21 RT					1	
2275310	96+90	TO	97+32	40 LT	TO	35 LT				44
2381508	97+32			35 LT					1	
2275317	97+32	TO	97+90	35 LT						62
2381505	97+47			53 LT					1	
2248347	97+47			53 LT	TO	60 LT				7
2381510	97+90			35 LT					1	
2248352	97+90	TO	97+95	35 LT	TO	56 LT				22
2248351	97+90	TO	98+10	35 LT	TO	36 LT				21
2381509	98+10			36 LT					1	
2248356	97+92	TO	100+10	52 LT	TO	39 LT				219
2275321	98+10	TO	98+11	36 LT	TO	12 LT				25
2381928	98+11			12 LT					1	
2275320	98+11	TO	98+13	12 LT	TO	25 RT				37
2381514	98+13			25 RT					1	
2248353	98+13	TO	98+46	25 RT						34
2381512	98+46			25 RT					1	
2248354	98+46	TO	98+51	25 RT						5
2381513	98+51			25 RT					1	
2248338	98+10	TO	100+10	36 LT	TO	39 LT				199
2359197	100+10			39 LT					1	
2200143	100+10	TO	101+54	39 LT	TO	38 LT				144
2381529	101+54			38 LT					1	
2275324	101+54	TO	101+73	38 LT	TO	12 LT				33
2381530	101+73			12 LT					1	
2275326	101+73	TO	102+07	12 LT	TO	13 LT				33
2381528	102+07			13 LT					1	
2275323	101+73	TO	102+00	12 LT	TO	23 RT				44
2359214	102+00			23 RT					1	
2200158	102+00	TO	102+40	23 RT						39
2359213	102+40			23 RT					1	
2275322	101+54	TO	102+00	38 LT	TO	39 LT				46
2359198	102+00			39 LT					1	
2200144	102+00	TO	103+49	39 LT						149
2359199	103+49			39 LT					1	
2200145	103+49	TO	105+26	39 LT	TO	38 LT				178

MISCELLANEOUS REMOVALS (DRAINAGE) — E

TAMS HYDINFRA ID #	STATION TO STATION			LOCATION			2104 REMOVE PIPE APRON EACH	2104 REMOVE CASTING EACH	2104 REMOVE DRAINAGE STRUCTURE EACH	2104 REMOVE SEWER PIPE (STORM) LIN FT
2381527	105+26			38 LT					1	
2275329	105+26	TO	105+44	38 LT	TO	61 LT				29
2275333	105+26	TO	105+28	38 LT	TO	14 LT				24
2381526	105+28			14 LT					1	
2275332	105+28	TO	105+27	14 LT	TO	30 RT				44
2381494	105+27			30 RT					1	
2275330	105+27	TO	105+45	30 RT	TO	44 RT				23
2360479	105+45			44 RT					1	
2200157	105+27	TO	105+78	30 RT	TO	23 RT				51
2359212	105+78			23 RT					1	
2275342	105+28	TO	105+87	14 LT						60
2381525	105+87			14 LT					1	
2275341	105+87	TO	106+20	14 LT	TO	15 LT				33
2381524	106+20			15 LT					1	
2275340	106+20	TO	106+50	15 LT	TO	14 LT				30
2381523	106+50			14 LT					1	
2275339	106+50	TO	106+81	14 LT						31
2381522	106+81			14 LT					1	
2275338	106+81	TO	107+13	14 LT						31
2381521	107+13			14 LT					1	
2275337	107+13	TO	107+48	14 LT						35
2381517	107+48			14 LT					1	
2275336	107+48	TO	107+75	14 LT						27
2381520	107+75			14 LT					1	
2275335	107+75	TO	108+06	14 LT						31
2381519	108+06			14 LT					1	
2275334	108+06	TO	108+37	14 LT						31
2381518	108+37			14 LT					1	
2275328	105+02	TO	105+30	75 LT	TO	77 LT				28
2269935	105+26	TO	105+77	38 LT	TO	39 LT				51
2359200	105+77			39 LT					1	
2200146	105+77	TO	107+54	39 LT						176
2359201	107+54			39 LT					1	
2200147	107+54	TO	108+85	39 LT	TO	38 LT				131
2381516	108+85			38 LT					1	
2275343	108+85	TO	108+90	38 LT	TO	45 LT				9
2381535	108+90			45 LT					1	
2275345	108+90	TO	109+27	45 LT	TO	70 LT				44
	108+85	TO	108+94	38 LT	TO	40 LT				9
2275346	108+85	TO	109+39	38 LT	TO	54 RT				106
2359211	109+39			54 RT					1	
2248357	109+39	TO	108+84	54 RT	TO	58 RT				55

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REV.	BY	DATE

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	DRAWN	CHECKED
AMR	AMR	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
QUANTITY TABULATION

SHEET 15 OF 359

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MISCELLANEOUS REMOVALS (DRAINAGE) — E

TAMS HYDINFRA ID #	STATION TO STATION			LOCATION			2104 REMOVE PIPE APRON EACH	2104 REMOVE CASTING EACH	2104 REMOVE DRAINAGE STRUCTURE EACH	2104 REMOVE SEWER PIPE (STORM) LIN FT
2381515	108+84			58 RT					1	
2359202	111+84			46 LT					1	
2200148	111+84	TO	112+43	46 LT	TO	49 LT				59
2359203	112+43			49 LT					1	
2200149	112+43	TO	112+45	49 LT	TO	13 RT				62
2359209	112+45			13 RT					1	
2200156	112+45	TO	112+05	13 RT	TO	14 RT				40
2359210	112+05			14 RT					1	
2308827	112+43	TO	112+76	49 LT						34
2381927	112+76			49 LT					1	
2200150	112+76	TO	113+04	49 LT						27
2381536	113+04			49 LT					1	
2275351	113+04	TO	113+92	49 LT	TO	50 LT				87
2359204	113+92			50 LT					1	
2200151	113+92	TO	114+13	50 LT						22
2359205	114+13			50 LT					1	
2248358	114+13	TO	114+12	50 LT	TO	12 RT				62
2359208	114+12			12 RT					1	
2200152	114+13	TO	114+68	50 LT	TO	49 LT				54
2200153	114+57	TO	114+68	70 LT	TO	49 LT				24
2359206	114+68			49 LT					1	
2200154	114+68	TO	114+94	49 LT	TO	12 RT				67
2359207	114+94			12 RT					1	
2200155	114+94	TO	115+89	12 RT	TO	14 RT				95
2359215	115+89			14 RT					1	
2200159	115+89	TO	116+22	14 RT	TO	18 RT				34
2381495	116+22			18 RT					1	
	115+83			63 LT					1	
	115+83	TO	116+18	63 LT	TO	82 LT				39
	116+19			96 LT					1	
	116+19	TO	116+18	96 LT	TO	82 LT				14
2359217	116+18			82 LT					1	
	116+18	TO	116+29	82 LT	TO	72 LT				15
	116+30	TO	116+29	87 LT	TO	72 LT				15
2359911	116+29			72 LT					1	
2188949	116+29	TO	116+36	72 LT	TO	65 LT				10
2359216	116+36			65 LT					1	
2200160	116+36	TO	117+03	65 LT	TO	44 LT				70
2343113	117+03			44 LT					1	
2248360	117+03	TO	117+01	44 LT	TO	58 LT				14
2343112	117+01			58 LT					1	
	117+01			58 LT	TO	82 LT				24

MISCELLANEOUS REMOVALS (DRAINAGE) — E

TAMS HYDINFRA ID #	STATION TO STATION			LOCATION			2104 REMOVE PIPE APRON EACH	2104 REMOVE CASTING EACH	2104 REMOVE DRAINAGE STRUCTURE EACH	2104 REMOVE SEWER PIPE (STORM) LIN FT
2200161	117+01	TO	117+19	58 LT						19
2359218	117+19			58 LT					1	
2200162	117+19	TO	117+32	58 LT	TO	51 LT				15
2359219	117+32			51 LT					1	
2248361	117+03	TO	117+83	44 LT	TO	48 LT				80
2248363	117+03	TO	117+01	44 LT	TO	16 RT				60
2341080	117+01			16 RT					1	
2248362	117+01	TO	117+20	16 RT	TO	11 RT				19
2343111	117+20			11 RT					1	
2200163	117+20	TO	117+31	11 RT	TO	25 RT				18
2359220	117+31			25 RT					1	
2387134	117+83			48 LT					1	
2200090	117+83	TO	118+92	48 LT	TO	45 LT				112
2368114	118+44			17 RT					1	
2200092	118+44	TO	119+47	17 RT	TO	26 RT				101
2368112	118+77			73 LT					1	
2200088	118+77	TO	119+48	73 LT	TO	43 LT				80
2368113	118+92			45 LT					1	
2200091	118+92	TO	119+48	45 LT	TO	43 LT				58
2368111	119+48			43 LT					1	
2200089	119+48	TO	119+47	43 LT	TO	26 RT				70
2341079	119+47			26 RT					1	
2200093	119+47	TO	119+99	26 RT	TO	21 RT				52
2368115	119+99			21 RT					1	
2200086	119+48	TO	121+52	43 LT	TO	39 LT				210
2368110	121+52			39 LT					1	
2200087	121+52	TO	121+50	39 LT	TO	25 RT				63
2368116	121+50			25 RT					1	
PEDESTRIAN UNDERPASS WEST OF STA. 33+31									2	283
501 BUILDING SERVICES									1	
2ND ST - 3RD ST PARKING LOT									2	
4TH ST - 5TH ST PARKING LOT										
5TH ST PARKING LOT									1	
SUBTOTALS								**1**	**79**	**4668**
C.S.A.H. 61: S.P. 196-020-014										
C.S.A.H. 61 EAST OF STA. 20+10							1	3	14	1770
DOLCE VITA PARKING LOT									1	43
SUBTOTALS							**1**	**3**	**15**	**1813**
TOTALS							**1**	**4**	**94**	**6481**

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BITUMINOUS SUMMARY — F

ROADWAY	STATION TO STATION			2108 GEOTEXTILE FABRIC TYPE 5 (SQ YD)	2231 BITUMINOUS PATCH SPECIAL (SQ YD)	2331 JOINT ADHESIVE (LIN FT)	2360 TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) (TON)	2360 TYPE SP 9.5 NON WEARING COURSE MIXTURE (2,B) (TON)	2360 TYPE SP 12.5 NON WEARING COURSE MIXTURE (4,B) (TON)	2360 TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) (TON)	2360 POROUS PAVEMENT (TON)	2521 3" BITUMINOUS WALK (SQ FT)
TH 41: S.P. 1008-87, S.P. 196-010-017												
T.H. 41 - STA. 81+07 TO 94+05	81+07	TO	94+05			629			26	35		1071
T.H. 41 - STA. 94+05 TO 2ND ST	94+05	TO	101+50			3015	6		596	795		890
T.H. 41 - 2ND ST TO 4TH ST	101+50	TO	109+14			2913	7		717	956		
T.H. 41 - 4TH ST TO CSAH 61	109+14	TO	116+69		9	2884	14		974	1298		
T.H. 41 - CSAH 61 TO WALNUT ST	116+69	TO	123+38			2595	15		912	1216		
PEDESTRIAN UNDERPASS TRAIL	30+00	TO	37+06									6513
501 BUILDING SERVICES					55							
2ND ST - 3RD ST PARKING LOT	101+89	TO	104+92	1900			300	10			30	
4TH ST - 5TH ST PARKING LOT	109+55	TO	112+56	2000			240	10				
5TH ST PARKING LOT	113+30	TO	115+15	1150			200	10				
SUBTOTALS				**5050**	**64**	**12036**	**782**	**30**	**3225**	**4300**	**30**	**8474**
C.S.A.H. 61: S.P. 196-020-014												
C.S.A.H. 61	20+60	TO	34+75			4356	6		1424	1898		511
DOLCE VITA PARKING LOT	20+26	TO	22+91				270					
SUBTOTALS						**4356**	**276**		**1424**	**1898**		**511**
TOTALS				**5050**	**64**	**16392**	**1058**	**30**	**4649**	**6198**	**30**	**8985**

SUBSURFACE DRAIN — S

ROADWAY	STATION TO STATION			LOCATION	2502 4" PERF TP PIPE DRAIN (LIN FT)	2502 4" PERF PVC PIPE DRAIN (LIN FT)	2502 4" PERF PE PIPE DRAIN (LIN FT)	2502 4" PVC PIPE DRAIN CLEAN OUT (EACH)
TH 41: S.P. 1008-87, S.P. 196-010-017								
TH 41	94+06	TO	97+50	LT	396			
TH 41	94+05	TO	97+46	RT	394			
TH 41	97+84	TO	98+09	LT	71			
TH 41	97+75	TO	101+37	RT	421			
TH 41	101+61	TO	105+17	RT	403			
TH 41	105+45	TO	108+99	RT	461			
TH 41	109+39	TO	112+79	RT	444			
TH 41	110+39	TO	112+75	LT	251			
TH 41	113+03	TO	116+34	LT	376			
TH 41	113+04	TO	116+25	RT	359			
TH 41	117+01	TO	119+09	LT	281			
TH 41	117+11	TO	123+33	RT	660			
TH 41	121+45	TO	123+38	LT	194			
2ND-3RD ST PARKING LOT						100	600	4
4TH-5TH ST PARKING LOT						160	850	5
5TH ST PARKING LOT						40	400	4
SUBTOTALS					**4711**	**300**	**1850**	**13**
C.S.A.H. 61: S.P. 196-020-014								
CSAH 61	20+48	TO	23+18	RT	305			
CSAH 61	20+60	TO	23+60	LT	300			
CSAH 61	23+62	TO	30+40	RT	715			
CSAH 61	24+25	TO	29+57	LT	588			
CSAH 61	30+15	TO	31+07	LT	122			
SUBTOTALS					**2030**			
TOTALS					**6741**	**300**	**1850**	**13**

AGGREGATE SUMMARY — G

ROADWAY	STATION TO STATION			2106 SELECT GRANULAR EMBANKMENT (CV) (CU YD)	2211 AGGREGATE BASE (CV) CLASS 5 (CU YD)	2211 AGGREGATE BASE (CV) CLASS 6 (CU YD)	2211 AGGREGATE BASE SPECIAL (CV) (CU YD)	2211 CRUSHED ROCK (CU YD)
TH 41: S.P. 1008-87, S.P. 196-010-017								
T.H. 41 - STA. 81+07 TO 94+05	81+07	TO	94+05	424		338		
T.H. 41 - STA. 94+05 TO 2ND ST	94+05	TO	101+50	3707		1525		
T.H. 41 - 2ND ST TO 4TH ST	101+50	TO	109+14	3401		1637		
T.H. 41 - 4TH ST TO CSAH 61	109+14	TO	116+69	4013		1861		
T.H. 41 - CSAH 61 TO WALNUT ST	116+69	TO	123+38	3878		1737		
CURLING CENTER PLANTER WALL	117+17	TO	117+41	28				
PEDESTRIAN UNDERPASS TRAIL	30+00	TO	37+06			292		
2ND ST - 3RD ST PARKING LOT	101+89	TO	104+92	700	550		25	65
4TH ST - 5TH ST PARKING LOT	109+55	TO	112+56	800	600			
5TH ST PARKING LOT	113+30	TO	115+15	600	575			
SUBTOTALS				**17551**	**1725**	**7390**	**25**	**65**
C.S.A.H. 61: S.P. 196-020-014								
C.S.A.H. 61	20+60	TO	34+75	6098		2814		
DOLCE VITA PARKING LOT	20+26	TO	22+91	488		359		
SUBTOTALS				**6586**		**3173**		
TOTALS				**24137**	**1725**	**10563**	**25**	**65**

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BRICK PAVERS — AA

ROADWAY	STATION TO STATION			2104 SALVAGE BRICK PAVERS (SQ FT)	2540 BRICK PAVERS (1) (SQ FT)	2540 INSTALL BRICK PAVERS (SQ FT)
TH 41: S.P. 1008-87, S.P. 196-010-017						
T.H. 41 - STA. 81+07 TO 94+05	81+07	TO	94+05			
T.H. 41 - STA. 94+05 TO 2ND ST	94+05	TO	101+50	398	100	398
T.H. 41 - 2ND ST TO 4TH ST	101+50	TO	109+14	889	250	889
T.H. 41 - 4TH ST TO CSAH 61	109+14	TO	116+69			
T.H. 41 - CSAH 61 TO WALNUT ST	116+69	TO	123+38			
PEDESTRIAN UNDERPASS	30+00	TO	37+06			
2ND ST - 3RD ST PARKING LOT	101+89	TO	104+92			
4TH ST - 5TH ST PARKING LOT	109+55	TO	112+56			
5TH ST PARKING LOT	113+30	TO	115+15			
SUBTOTALS				**1287**	**350**	**1287**
C.S.A.H. 61: S.P. 196-020-014						
C.S.A.H. 61	20+60	TO	34+75			
DOLCE VITA PARKING LOT	20+26	TO	22+91			
SUBTOTALS						
TOTALS				**1287**	**350**	**1287**

NOTE:
(1) TH 41 ADDITIONAL BRICK PAVERS TO BE USED AS NEEDED FOR RESTORATION OF BRICK PAVEMENT ON SIDE STREETS.

TRAFFIC BARRIER — H

ROADWAY	STATION TO STATION			2104 REMOVE ENERGY ABSORBING TERMINAL (EACH)	2104 REMOVE GUARDRAIL - PLATE BEAM (LIN FT)	2554 ANCHORAGE ASSEMBLY - TYPE 31 (EACH)	2554 END TREATMENT - TANGENT TERMINAL (2) (EACH)	2554 TRAFFIC BARRIER DESIGN TYPE 31 (LIN FT)	2554 TRAFFIC BARRIER DESIGN TRANSITION TYPE 31 (LIN FT)
TH 41: S.P. 1008-87, S.P. 196-010-017									
T.H. 41 - STA. 81+07 TO 94+05	81+07	TO	94+05						
T.H. 41 - STA. 94+05 TO 2ND ST	94+05	TO	101+50						
T.H. 41 - 2ND ST TO 4TH ST	101+50	TO	109+14						
T.H. 41 - 4TH ST TO CSAH 61	109+14	TO	116+69						
T.H. 41 - CSAH 61 TO WALNUT ST	116+69	TO	123+38						
PEDESTRIAN UNDERPASS	30+00	TO	37+06						
2ND ST - 3RD ST PARKING LOT	101+89	TO	104+92						
4TH ST - 5TH ST PARKING LOT	109+55	TO	112+56						
5TH ST PARKING LOT	113+30	TO	115+15						
SUBTOTALS									
C.S.A.H. 61: S.P. 196-020-014									
C.S.A.H. 61	20+60	TO	34+75	2	300	1	1	37.5	25
DOLCE VITA PARKING LOT	20+26	TO	22+91						
SUBTOTALS				**2**	**300**	**1**	**1**	**37.5**	**25**
TOTALS				**2**	**300**	**1**	**1**	**37.5**	**25**

NOTE:
(2) END TREATMENT SHALL BE EITHER MSKT OR SOFTSTOP

CONCRETE SUMMARY — I

ROADWAY	STATION TO STATION			2301 CONCRETE PAVEMENT 8.0" (SQ YD)	2401 SIDEWALK CONCRETE (3F52) (CU YD)	2411 CONCRETE STAIRWAY (EACH)	2521 4" CONCRETE WALK (SQ FT)	2521 6" CONCRETE WALK (SQ FT)	2521 7" CONCRETE WALK (SQ FT)	2531 CONCRETE CURB AND GUTTER DESIGN B412 (LIN FT)	2531 CONCRETE CURB AND GUTTER DESIGN B612 (LIN FT)	2531 CONCRETE CURB AND GUTTER DESIGN B418 (LIN FT)	2531 CONCRETE CURB AND GUTTER DESIGN B618 (LIN FT)	2531 CONCRETE CURB AND GUTTER DESIGN B424 (LIN FT)	2531 CONCRETE CURB AND GUTTER DESIGN B624 (LIN FT)	2531 CONCRETE SILL (LIN FT)	2531 CONCRETE CURB DESIGN V6 (MODIFIED) (LIN FT)	2531 CONCRETE CURB DESIGN V (LIN FT)	2531 6" CONCRETE VALLEY GUTTER (SQ YD)	2531 6" CONCRETE DRIVEWAY PAVEMENT (SQ YD)	2531 7" CONCRETE DRIVEWAY PAVEMENT (SQ YD)	2531 8" CONCRETE DRIVEWAY PAVEMENT (SQ YD)
TH 41: S.P. 1008-87, S.P. 196-010-017																							
T.H. 41 - STA. 81+07 TO 94+05	81+07	TO	94+05				1489				667					619							
T.H. 41 - STA. 94+05 TO 2ND ST	94+05	TO	101+50	126	23		1021	14073		91	1672		46	89	1198	2714				36			271
T.H. 41 - 2ND ST TO 4TH ST	101+50	TO	109+14	200			1449	17000		172	1515		4	313	1083	2649			117				71
T.H. 41 - 4TH ST TO CSAH 61	109+14	TO	116+69	142			1719	13541		70	1679		13	20	1253	2460			76				51
T.H. 41 - CSAH 61 TO WALNUT ST	116+69	TO	123+38				2529	15032			1756				856	2303			24				80
501 BUILDING SERVICES											18												
PEDESTRIAN UNDERPASS	30+00	TO	37+06					11219															
2ND ST - 3RD ST PARKING LOT	101+89	TO	104+92			4	2975		4060		540					97	235		12				
4TH ST - 5TH ST PARKING LOT	109+55	TO	112+56					40	3975		850												
5TH ST PARKING LOT	113+30	TO	115+15				1075	1200	1700		400					117						61	
SUBTOTALS				**468**	**23**	**4**	**12257**	**72105**	**9735**	**333**	**9097**		**63**	**422**	**4390**	**10959**	**235**	**217**	**12**	**36**	**61**	**473**
C.S.A.H. 61: S.P. 196-020-014																							
C.S.A.H. 61	20+60	TO	34+75				8701	11862			2161		3		2103	2562		101					148
DOLCE VITA PARKING LOT	20+26	TO	22+91	32				1119			18	98	564										
SUBTOTALS				**32**			**8701**	**12981**			**2179**	**98**	**567**		**2103**	**2562**		**101**					**148**
TOTALS				**500**	**23**	**4**	**20958**	**85086**	**9735**	**333**	**11276**	**98**	**630**	**422**	**6493**	**13521**	**235**	**318**	**12**	**36**	**61**	**621**

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TRUNCATED DOMES

J

LOCATION	CORNER LOCATION	DESCRIPTION	2521 DRILL AND GROUT REINFORCEMENT BAR (EPOXY COATED) EACH	2531 TRUNCATED DOMES RECTANGULAR SQ FT	2531 TRUNCATED DOMES RADIAL SQ FT	CURB RAMP DESIGN	CURB RADIUS (FOR RADIAL DOMES)
T.H. 41: S.P. 1008-87, S.P. 196-010-017							
1ST ST	SW	SOUTH	38	15		PERPENDICULAR	
1ST ST	SW	NORTH		16		PERPENDICULAR	
1ST ST	NW		23	3	36	FAN	20'
1ST ST	MEDIAN	SOUTH-WEST	13	15		PERPENDICULAR	
1ST ST	MEDIAN	SOUTH-EAST		15		PERPENDICULAR	
1ST ST	MEDIAN	NORTH-WEST	13	15		PERPENDICULAR	
1ST ST	MEDIAN	NORTH-EAST		15		PERPENDICULAR	
1ST ST	SE	SOUTH	38	15		PERPENDICULAR	
1ST ST	SE	NORTH		16		PERPENDICULAR	
1ST ST	NE	SOUTH	35	15		PERPENDICULAR	
1ST ST	NE	NORTH		15		PERPENDICULAR	
2ND ST	SW	SOUTH	28	11		DIAGONAL	
2ND ST	SW	NORTH		11		DIAGONAL	
2ND ST	NW		21	4	36	DEPRESSED CORNER	25'
2ND ST	SE		23		32	FAN	20'
2ND ST	NE	SOUTH	38	15		DIRECTIONAL	
2ND ST	NE	NORTH		15		PERPENDICULAR	
3RD ST	SW	SOUTH	33	15		DIAGONAL	
3RD ST	SW	NORTH		15		DIAGONAL	
3RD ST	NW	SOUTH	30	15		DIAGONAL	
3RD ST	NW	NORTH		16		DIAGONAL	
3RD ST	MEDIAN	SOUTH-WEST	13	15		PERPENDICULAR	
3RD ST	MEDIAN	SOUTH-EAST		15		PERPENDICULAR	
3RD ST	MEDIAN	NORTH-WEST	13	15		PERPENDICULAR	
3RD ST	MEDIAN	NORTH-EAST		15		PERPENDICULAR	
3RD ST	SE		29		32	FAN	25'
3RD ST	NE	SOUTH	36	18		DIAGONAL	
3RD ST	NE	NORTH		15		DIRECTIONAL	
4TH ST	SW		32		36	FAN	25'
4TH ST	NW		38		40	FAN	25'
4TH ST	SE		21	4	36	FAN	25'
4TH ST	NE		21		40	FAN	25'
5TH ST	SW	SOUTH	28	15		DIRECTIONAL	
5TH ST	SW	NORTH		15		DIAGONAL	
5TH ST	NW	SOUTH	19	16		DIAGONAL	
5TH ST	NW	NORTH		15		PERPENDICULAR	
5TH ST	SE		29	12	32	DEPRESSED CORNER	20'
5TH ST	NE		29	13.5	32	DEPRESSED CORNER	20'
C.S.A.H. 61	SW		32		40	FAN	56'
C.S.A.H. 61	NW		23		32	FAN	50'
C.S.A.H. 61	SE	WEST	19		32	PARALLEL	45'
C.S.A.H. 61	SE	EAST	5	15		PERPENDICULAR	
C.S.A.H. 61	NE	SOUTH	27		28	FAN	40'
C.S.A.H. 61	NE	NORTH	10	15		DIAGONAL	

TRUNCATED DOMES

J

LOCATION	CORNER LOCATION	DESCRIPTION	2521 DRILL AND GROUT REINFORCEMENT BAR (EPOXY COATED) EACH	2531 TRUNCATED DOMES RECTANGULAR SQ FT	2531 TRUNCATED DOMES RADIAL SQ FT	CURB RAMP DESIGN	CURB RADIUS (FOR RADIAL DOMES)
T.H. 41: S.P. 1008-87, S.P. 196-010-017							
WALNUT ST	W		17	15		PERPENDICULAR	
WALNUT ST	MEDIAN	WEST	13	15		PERPENDICULAR	
WALNUT ST	MEDIAN	EAST		15		PERPENDICULAR	
WALNUT ST	E	SOUTH	21	16		PERPENDICULAR	
WALNUT ST	E	NORTH	22	20		DIAGONAL	
4TH-5TH ST PARKING LOT			10	15		PERPENDICULAR	
5TH ST PARKING LOT			24	28			
SUBTOTALS			**864**	**610**	**484**		
C.S.A.H. 61: S.P. 196-020-014							
WALNUT ST	NW		24		36	FAN	40'
WALNUT ST	NE		22		24	FAN	30'
WALNUT ST	MEDIAN	NORTH	4	19		DIRECTIONAL	
WALNUT ST	MEDIAN	SOUTH	4	19		DIRECTIONAL	
WALNUT ST	SW		24		36	FAN	50'
WALNUT ST	SE	SOUTH	22	19		PERPENDICULAR	
WALNUT ST	SE	NORTH	21	16		DIRECTIONAL	
DOLCE VITA D/W	W		16	19		DIRECTIONAL	
DOLCE VITA D/W	E		14	19		DIRECTIONAL	
YELLOW BRICK RD	NW		7		20	DIRECTIONAL	35'
YELLOW BRICK RD	NE		8		24	DIRECTIONAL	35'
SUBTOTALS			**166**	**111**	**140**		
TOTALS			**1030**	**721**	**624**		

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	AMR
DRAWN	AMR
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
QUANTITY TABULATION

SHEET 19 OF 359

TURF ESTABLISHMENT & EROSION CONTROL

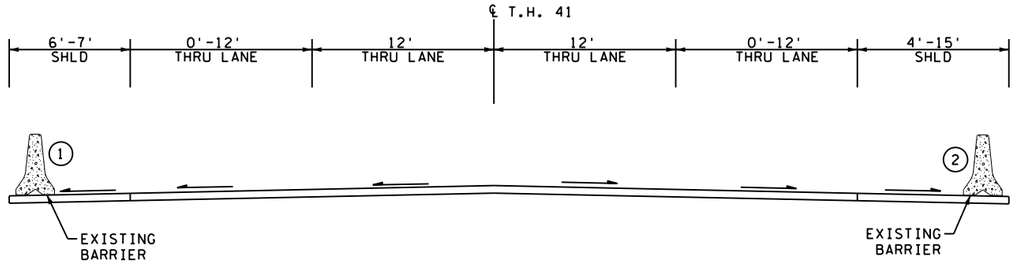
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STATION TO STATION			LOCATION	2573					2574				2575									
				STORM DRAIN INLET PROTECTION	CULVERT END CONTROLS	SILT FENCE TYPE MACHINE SLICED	SEDIMENT CONTROL LOG TYPE WOOD FIBER	FLOTATION SILT CURTAIN TYPE MOVING WATER	SUBSOILING	SOIL BED PREPARATION	FERTILIZER TYPE 3 (1)	FERTILIZER TYPE 4 (2)	SEEDING (3)	SEED MIXTURE 25-131	SEED MIXTURE 25-151	SEED MIXTURE 35-241	ROLLED EROSION PREVENTION CAT. 25	HYDRAULIC REINFORCED FIBER MATRIX (4)	MOWING (5)	WEED SPRAYING (6)	WEED SPRAY MIXTURE	RAPID STABILIZATION METHOD 3 (7)	RAPID STABILIZATION METHOD 4
				EACH	EACH	LIN FT	LIN FT	LIN FT	ACRE	ACRE	POUND	POUND	ACRE	POUND	POUND	POUND	SQ YD	POUND	ACRE	ACRE	GALLON	MGAL	SQ YD
T.H. 41: S.P. 1008-87, S.P. 196-010-017																							
BEGIN	TO	87+50	LT-RT																				
87+50	TO	94+00	LT-RT																				
94+00	TO	100+90	LT-RT	28		38	38		0.1	0.1	13		0.1	5	2		116	49	0.2	0.1	0.05	1	
100+90	TO	108+00	LT-RT	30																			
108+00	TO	113+50	LT-RT	25					0.1	0.1	8		0.1	5			107		0.2	0.1	0.05	1	
113+50	TO	118+50	LT-RT	14					0.1	0.1	4		0.1	2			53		0.2	0.1	0.05	1	
118+50	TO	END	LT-RT	8		365			0.1	0.1	23		0.1	15			322		0.2	0.1	0.05	1	
2ND-3RD PARKING LOT																							
BEGIN	TO	END	LT-RT	9		121	84		0.1	0.1	7		0.1	4			98		0.2	0.1	0.05	1	
4TH-5TH PARKING LOT																							
BEGIN	TO	END	LT-RT	12		180			0.1	0.1	21		0.1	13			288		0.2	0.1	0.05	1	
PEDESTRIAN UNDERPASS																							
BEGIN	TO	34+00	LT-RT	6			143		0.2	0.2	40		0.2	25			549		0.4	0.1	0.05	1	
34+00	TO	END	LT-RT	8			109		0.1	0.1	24		0.1	15			339		0.2	0.1	0.05	1	
S.P. 1008-87, S.P. 196-010-017 TOTAL				**140**		**704**	**374**		**0.9**	**0.9**	**140**		**0.9**	**84**	**2**		**1872**	**49**	**1.8**	**0.8**	**0.40**	**8**	
C.S.A.H. 61: S.P. 196-020-014																							
BEGIN	TO	22+20	LT-RT	9					0.1	0.1	3		0.1	2			39		0.2	0.1	0.05	1	
22+20	TO	29+10	LT-RT	21		503	56		0.6	0.6	193		0.6	121			2672		1.2	0.3	0.15	4	
29+10	TO	END	LT-RT	5	1	353	110	22	0.3	0.3	56	15	0.3	35		4	1258		0.6	0.2	0.1	1	483
S.P. 196-020-014 TOTAL				**35**	**1**	**856**	**166**	**22**	**1.0**	**1.0**	**252**	**15**	**1.0**	**158**		**4**	**3969**		**2.0**	**0.6**	**0.30**	**6**	**483**
PROJECT TOTALS				**175**	**1**	**1560**	**540**	**22**	**1.9**	**1.9**	**392**	**15**	**1.9**	**242**	**2**	**4**	**5841**	**49**	**3.8**	**1.4**	**0.70**	**14**	**483**

NOTES:

(1) USE FERTILIZER TYPE 3 ANALYSIS 22-5-10, APPLICATION RATE=350 LBS/AC.
(2) USE FERTILIZER TYPE 4 ANALYSIS 18-1-8, APPLICATION RATE=150 LBS/AC.
(3) SEEDING SHALL BE PAID ONCE FOR ALL PERMANENT STABILIZATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL SEEDING APPLICATIONS NEEDED TO MEET FINAL STABILIZATION REQUIREMENTS.
(4) APPLICATION RATE=3900 LBS/AC
(5) MOWING QUANTITY BASED ON 200% OF THE SEEDING AREA. ENSURE MOWING OPERATIONS WILL NOT DAMAGE PREVIOUSLY PLACED EROSION CONTROL PRODUCTS OR SPREAD WEED SEEDS
(6) WEED SPRAY MIXTURE QUANTITY BASED ON 0.5 GAL/ACRE. MIXTURE SHALL BE 2, 4-D AMINE LABELED FOR BOTH AQUATIC AND R/W USE AND FORMULATED AT 3.8 LB ACID EQUIVALENT PER GALLON
(7) APPLICATION RATE=6MGAL/AC

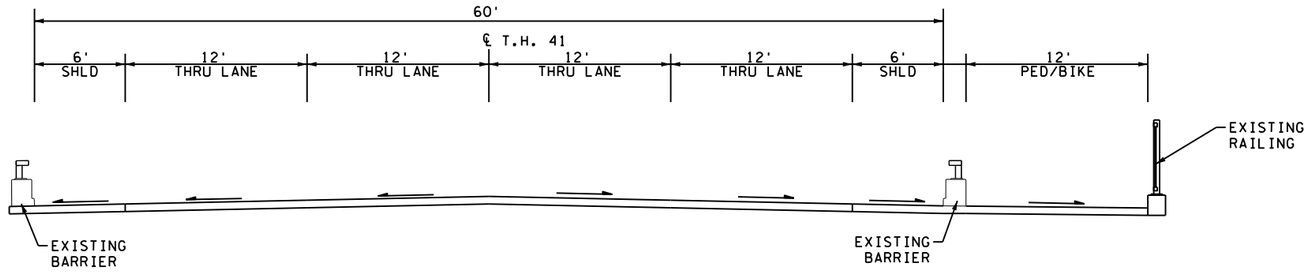
EXISTING TYPICAL SECTION
T.H. 41 N.B. STA 81+07 TO STA 88+78.86



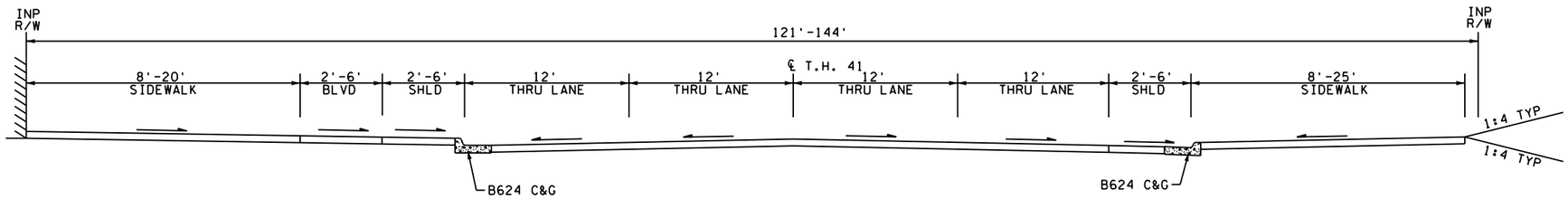
SPECIAL NOTES:

1. GUARDRAIL LOCATED FROM STA 85+46 TO 88+30
2. GUARDRAIL LOCATED FROM STA 84+62 TO 88+30

EXISTING BRIDGE TYPICAL SECTION
T.H. 41 N.B. STA 88+78.86 TO STA 94+04.60



EXISTING TYPICAL SECTION
T.H. 41 N.B. STA 94+04.60 TO STA 97+18



EXISTING PAVEMENT THICKNESS		
LOCATION	MATERIAL	AVG. APPROX. THICKNESS
TH 41 NB	BITUMINOUS	10"
TH 41 SB	BITUMINOUS	12"
CSAH 61	BITUMINOUS	11.5"
TH 41	CONCRETE	10"

NOTES:
1. EXISTING PAVEMENT DEPTHS ARE APPROXIMATE AND ARE REFERENCED IN THE SOIL BORING REPORT.
2. FIELD VERIFY THICKNESSES.
3. ANY VARIANCE IN PAVEMENT THICKNESS WILL NOT BE COMPENSATED AND IS INCIDENTAL.
4. CSAH 61 HAS 20' WIDE SLAB OF UNREINFORCED CONCRETE PAVEMENT (9"-7"-9") UNDER EXISTING BITUMINOUS.
5. TH 41 CONCRETE PAVEMENT IS UNREINFORCED.

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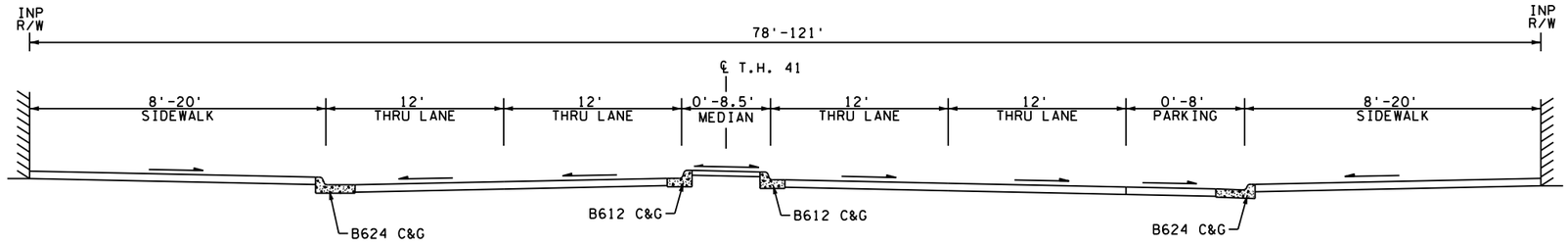
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL SECTIONS

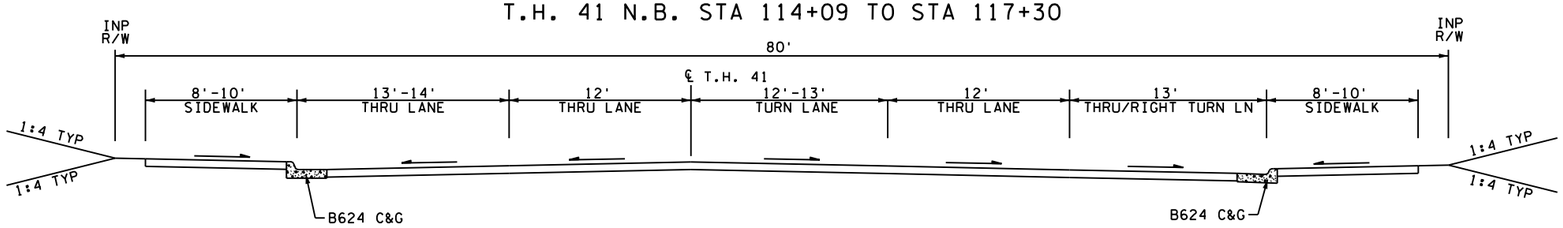
SHEET 21 OF 359

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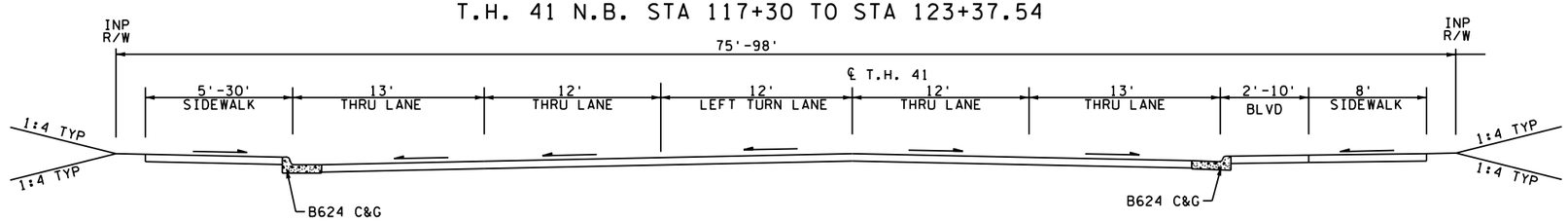
EXISTING TYPICAL SECTION
T.H. 41 N.B. STA 97+18 TO STA 114+09



EXISTING TYPICAL SECTION
T.H. 41 N.B. STA 114+09 TO STA 117+30



EXISTING TYPICAL SECTION
T.H. 41 N.B. STA 117+30 TO STA 123+37.54



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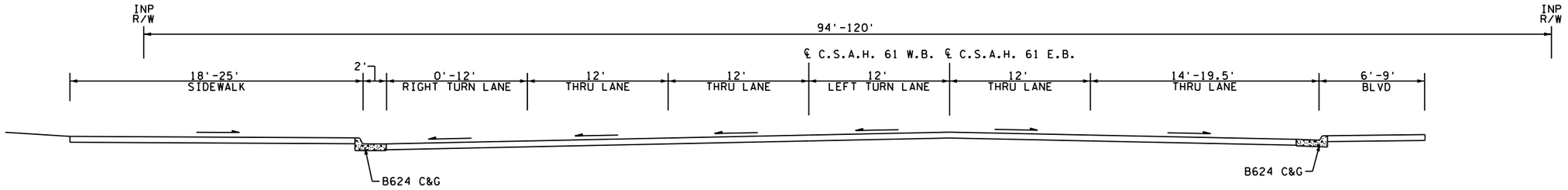
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL SECTIONS

SHEET 22 OF 359

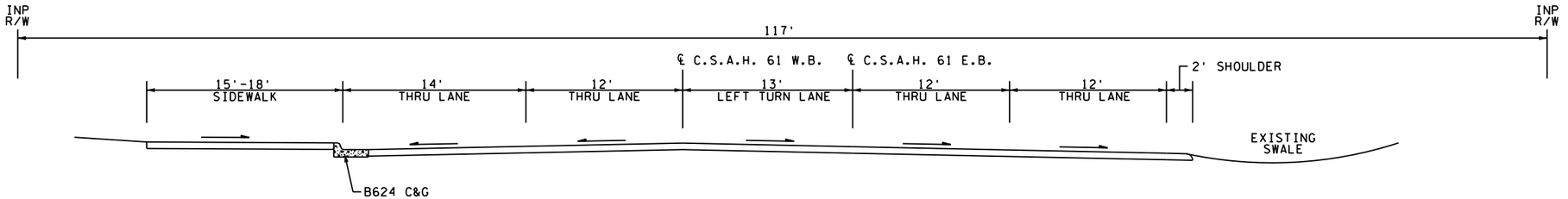
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Packet Page 51 of...
Page 23 of...

EXISTING TYPICAL SECTION
C.S.A.H. 61 E.B. STA 20+23 TO STA 23+64



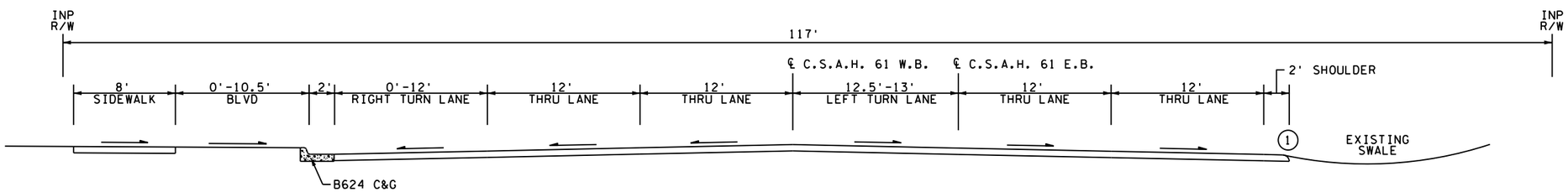
EXISTING TYPICAL SECTION
C.S.A.H. 61 E.B. STA 23+64 TO STA 26+25



SPECIAL NOTES:

(1) GUARDRAIL LOCATED FROM STA 28+00 TO 30+43

EXISTING TYPICAL SECTION
C.S.A.H. 61 E.B. STA 26+25 TO STA 30+42.91



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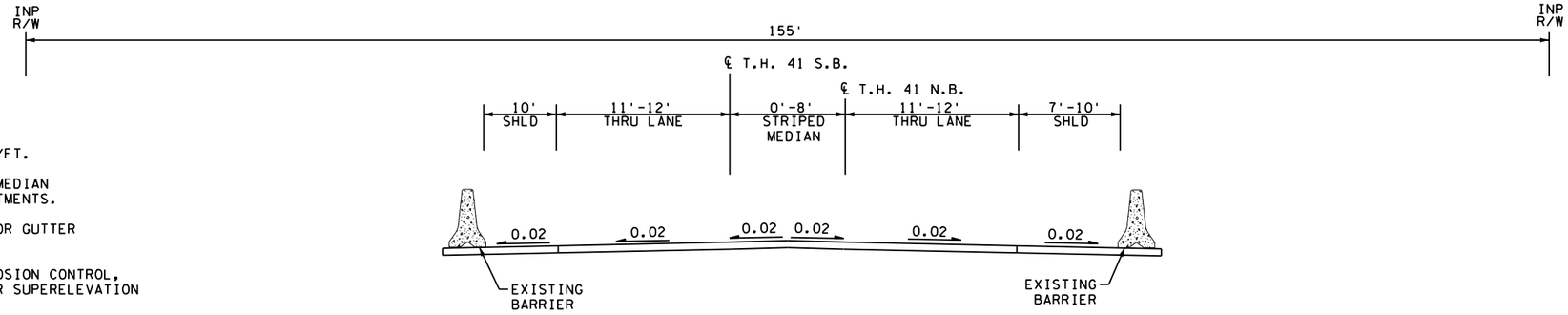
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL SECTIONS

SHEET 23 OF 359

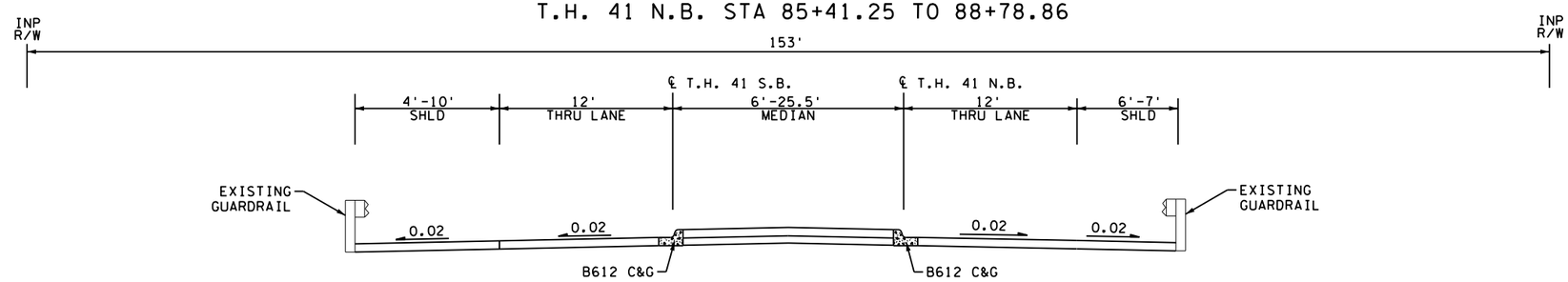
PROPOSED TYPICAL SECTION
T.H. 41 N.B. STA 81+07 TO STA 85+41.25



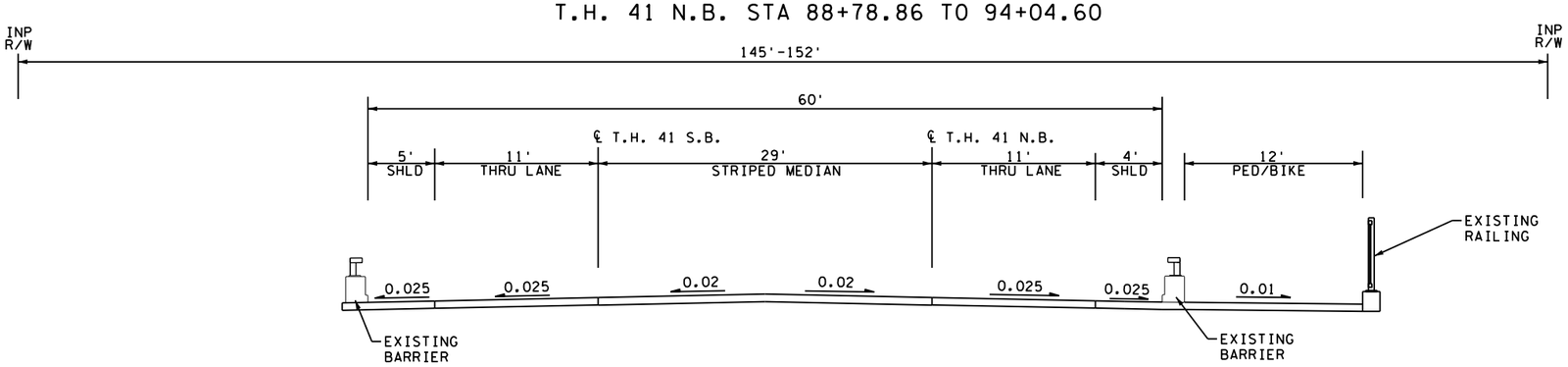
GENERAL NOTES:

1. ALL CROSS SLOPES ARE IN FT/FT.
2. SEE STREETSCAPE PLANS FOR MEDIAN AND BOULEVARD SPECIAL TREATMENTS.
3. SEE SIDEWALK DETAIL PLAN FOR GUTTER OUT LOCATIONS.
4. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION TRANSITIONS.

PROPOSED TYPICAL SECTION - ADD MEDIAN AND RESTRIPE
T.H. 41 N.B. STA 85+41.25 TO 88+78.86



PROPOSED TYPICAL SECTION - RESTRIPING ON BRIDGE
T.H. 41 N.B. STA 88+78.86 TO 94+04.60



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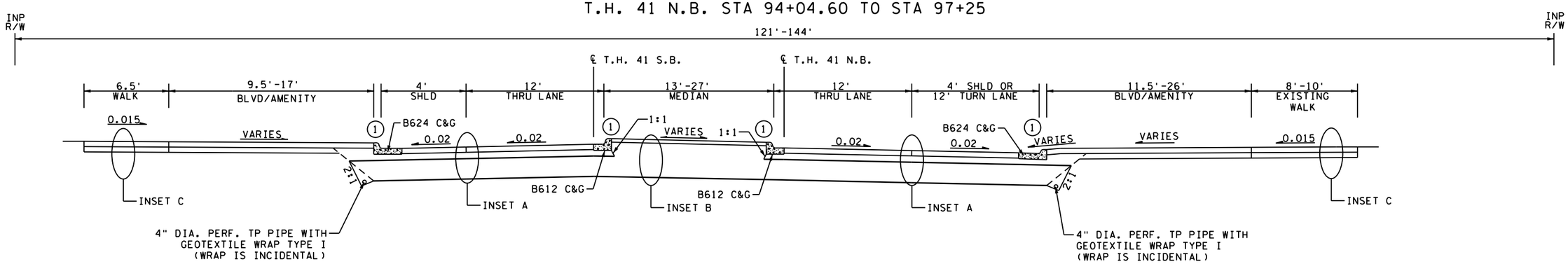
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL SECTIONS

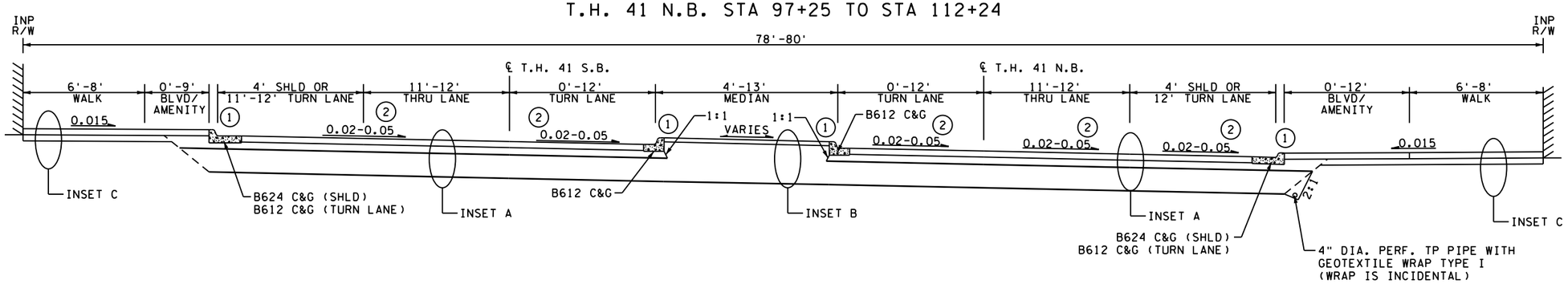
SHEET 24 OF 359

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Packet Page 53 of...
Page 25 of...

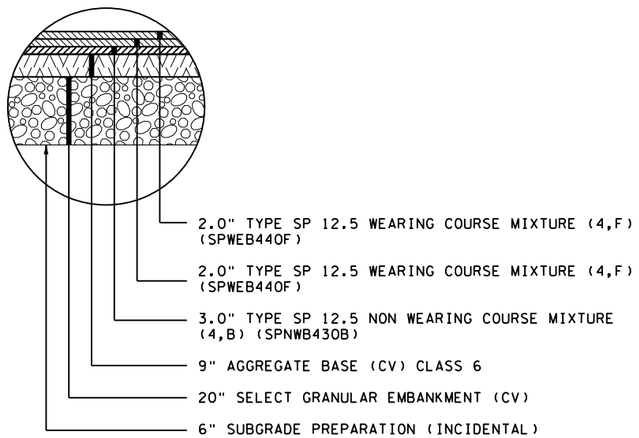
PROPOSED TYPICAL SECTION
T.H. 41 N.B. STA 94+04.60 TO STA 97+25



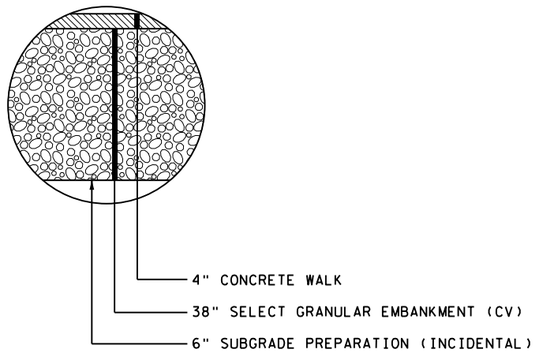
PROPOSED TYPICAL SECTION
T.H. 41 N.B. STA 97+25 TO STA 112+24



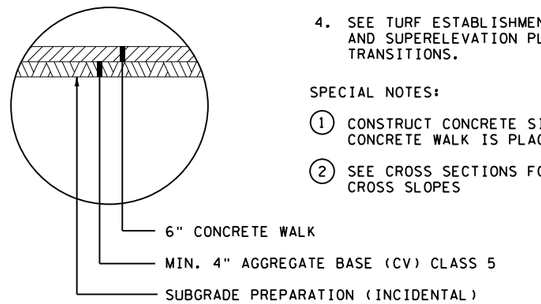
INSET A
TH 41 BITUMINOUS PAVEMENT



INSET B
CONCRETE MEDIAN



INSET C
CONCRETE WALK



GENERAL NOTES:

1. ALL CROSS SLOPES ARE IN FT/FT.
2. SEE STREETSCAPE PLANS FOR MEDIAN AND BOULEVARD SPECIAL TREATMENTS.
3. SEE SIDEWALK DETAIL PLAN FOR GUTTER OUT LOCATIONS.
4. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION TRANSITIONS.

SPECIAL NOTES:

(1) CONSTRUCT CONCRETE SILL FOR ALL LOCATIONS CONCRETE WALK IS PLACED AT BACK OF CURB

(2) SEE CROSS SECTIONS FOR SUPERELEVATED CROSS SLOPES

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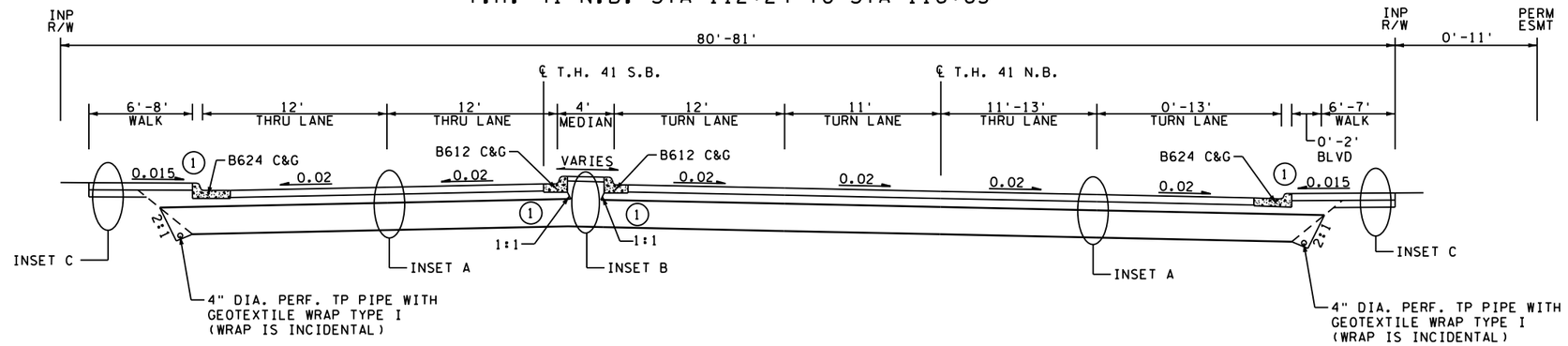
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DMK	TWB	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL SECTIONS

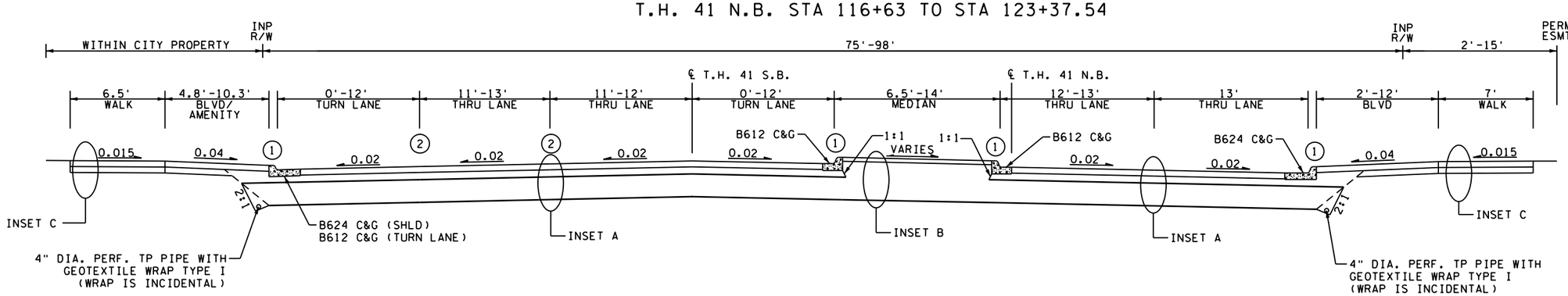
SHEET 25 OF 359

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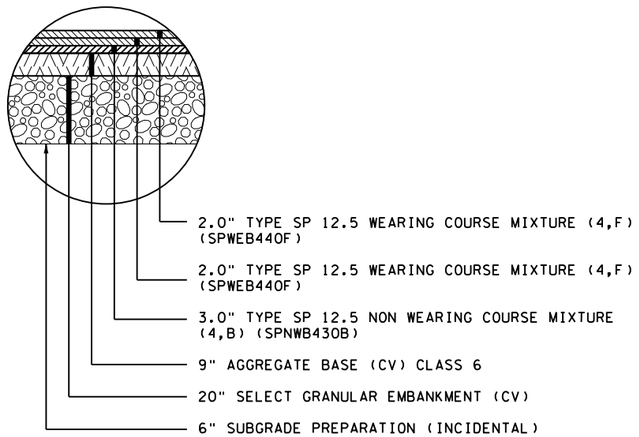
PROPOSED TYPICAL SECTION
T.H. 41 N.B. STA 112+24 TO STA 116+63



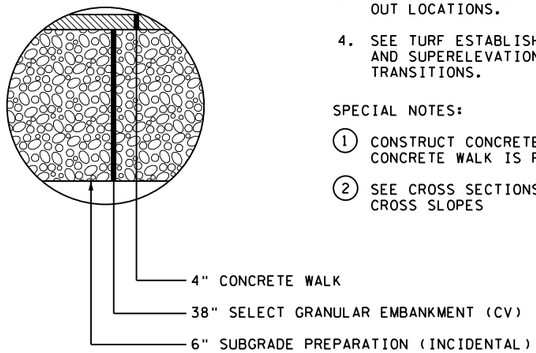
PROPOSED TYPICAL SECTION
T.H. 41 N.B. STA 116+63 TO STA 123+37.54



INSET A
TH 41 BITUMINOUS PAVEMENT



INSET B
CONCRETE MEDIAN



GENERAL NOTES:

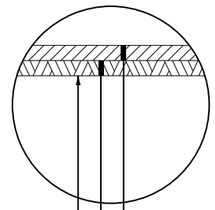
1. ALL CROSS SLOPES ARE IN FT/FT.
2. SEE STREETSCAPE PLANS FOR MEDIAN AND BOULEVARD SPECIAL TREATMENTS.
3. SEE SIDEWALK DETAIL PLAN FOR GUTTER OUT LOCATIONS.
4. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION TRANSITIONS.

SPECIAL NOTES:

(1) CONSTRUCT CONCRETE SILL FOR ALL LOCATIONS CONCRETE WALK IS PLACED AT BACK OF CURB

(2) SEE CROSS SECTIONS FOR SUPERELEVATED CROSS SLOPES

INSET C
CONCRETE WALK



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BURNSVILLE, MINNESOTA 55337
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LIC. NO. 45859 DATE 03-02-2022

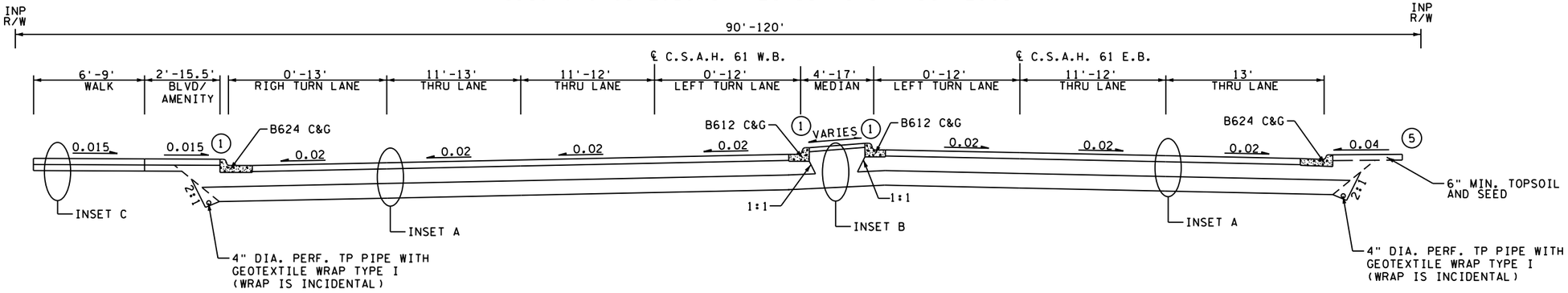
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CHECKED	DMK

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

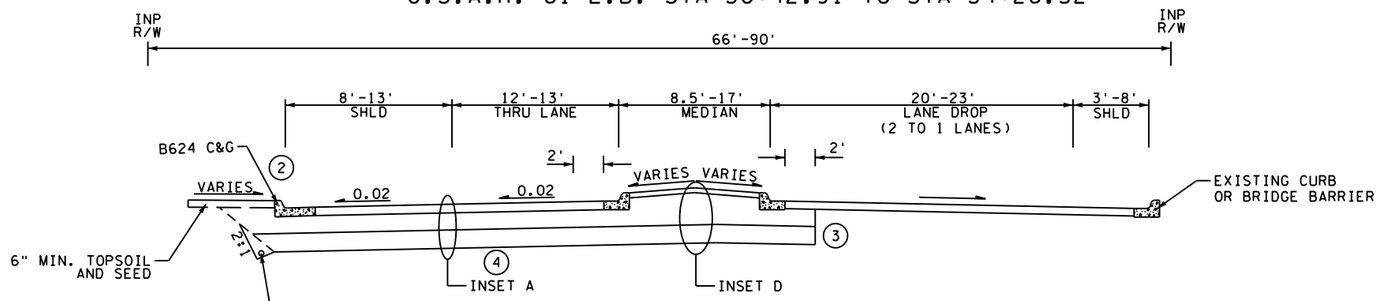
TYPICAL SECTIONS

SHEET 26 OF 359

PROPOSED TYPICAL SECTION
C.S.A.H. 61 E.B. STA 20+35 TO STA 30+42.91



PROPOSED TYPICAL SECTION
C.S.A.H. 61 E.B. STA 30+42.91 TO STA 34+26.52



GENERAL NOTES:

1. ALL CROSS SLOPES ARE IN FT/FT.
2. SEE STREETSCAPE PLANS FOR MEDIAN AND BOULEVARD SPECIAL TREATMENTS.
3. SEE SIDEWALK DETAIL PLAN FOR GUTTER OUT LOCATIONS.
4. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION TRANSITIONS.

SPECIAL NOTES:

(1) CONSTRUCT CONCRETE SILL FOR ALL LOCATIONS CONCRETE WALK IS PLACED AT BACK OF CURB

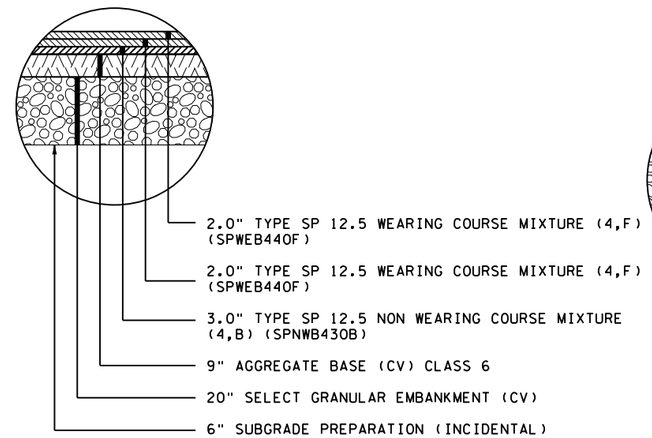
(2) NEW B624 C&G FROM STA 30+42.91 TO STA 31+06.50

(3) IF EXISTING MATERIAL MEETS SELECT GRANULAR EMBANKMENT SPECIFICATIONS, CAN LEAVE IN PLACE

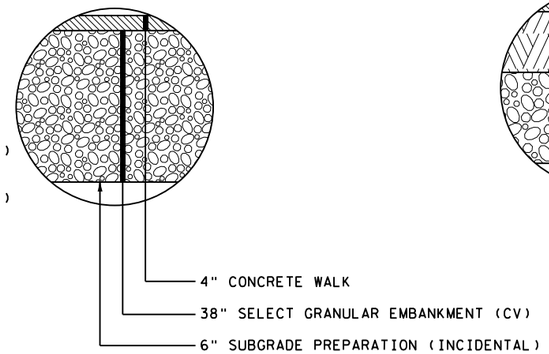
(4) PAVEMENT RECONSTRUCTION IS WEST OF BRIDGE

(5) SEE CROSS SECTIONS FOR BOULEVARD AND SWALE SLOPES

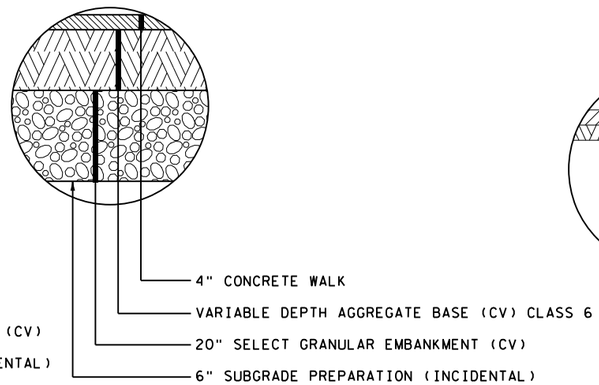
INSET A
CR 61 BITUMINOUS PAVEMENT



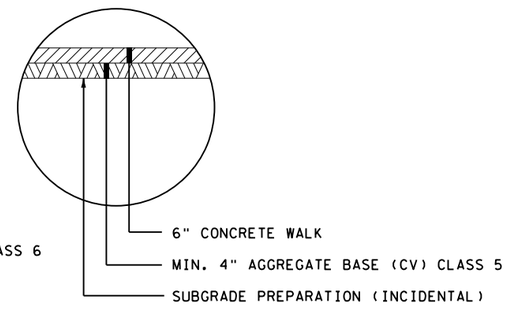
INSET B
CONCRETE MEDIAN



INSET D
CONCRETE MEDIAN



INSET C
CONCRETE WALK



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DRAWN	TWB
CHECKED	DMK

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL SECTIONS

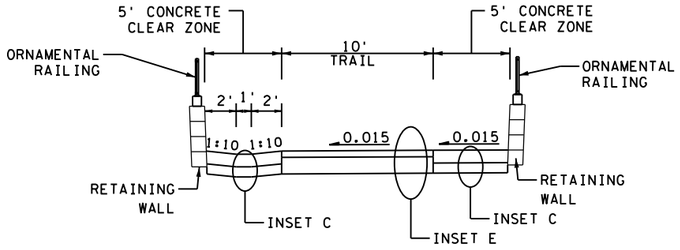
SHEET 27 OF 359

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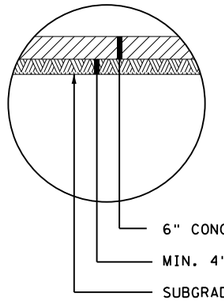
GENERAL NOTES:

1. ALL CROSS SLOPES ARE IN FT/FT.
2. SEE STREETSCAPE PLANS FOR MEDIAN AND BOULEVARD SPECIAL TREATMENTS.
3. SEE SIDEWALK DETAIL PLAN FOR GUTTER OUT LOCATIONS.
4. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION TRANSITIONS.

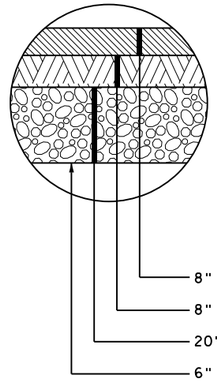
PROPOSED TYPICAL SECTION TRAIL STA 30+00 TO 36+50



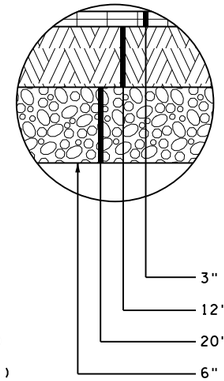
INSET C
CONCRETE WALK



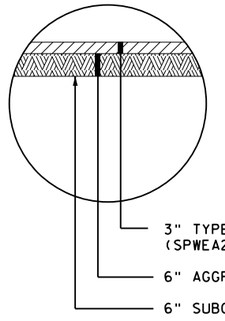
CONCRETE CROSSWALKS



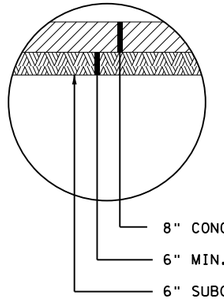
ROADWAY CLAY BRICK PAVERS



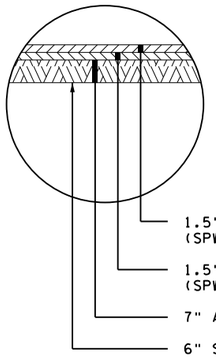
BITUMINOUS DRIVEWAYS - RESIDENTIAL



CONCRETE COMMERCIAL DRIVEWAYS

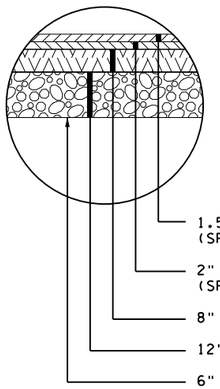


INSET E BITUMINOUS TRAIL



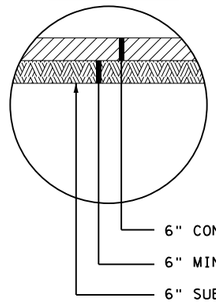
NOTE: BITUMINOUS IS PAID FOR AS 3" BITUMINOUS WALK

BITUMINOUS DRIVEWAYS / PARKING LOTS - COMMERCIAL



NOTE: USE THIS SAME INSET FOR BITUMINOUS PATCH SPECIAL PAY ITEM

CONCRETE RESIDENTIAL DRIVEWAYS



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LIC. NO. 45859 DATE 03-02-2022

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CHECKED	DMK

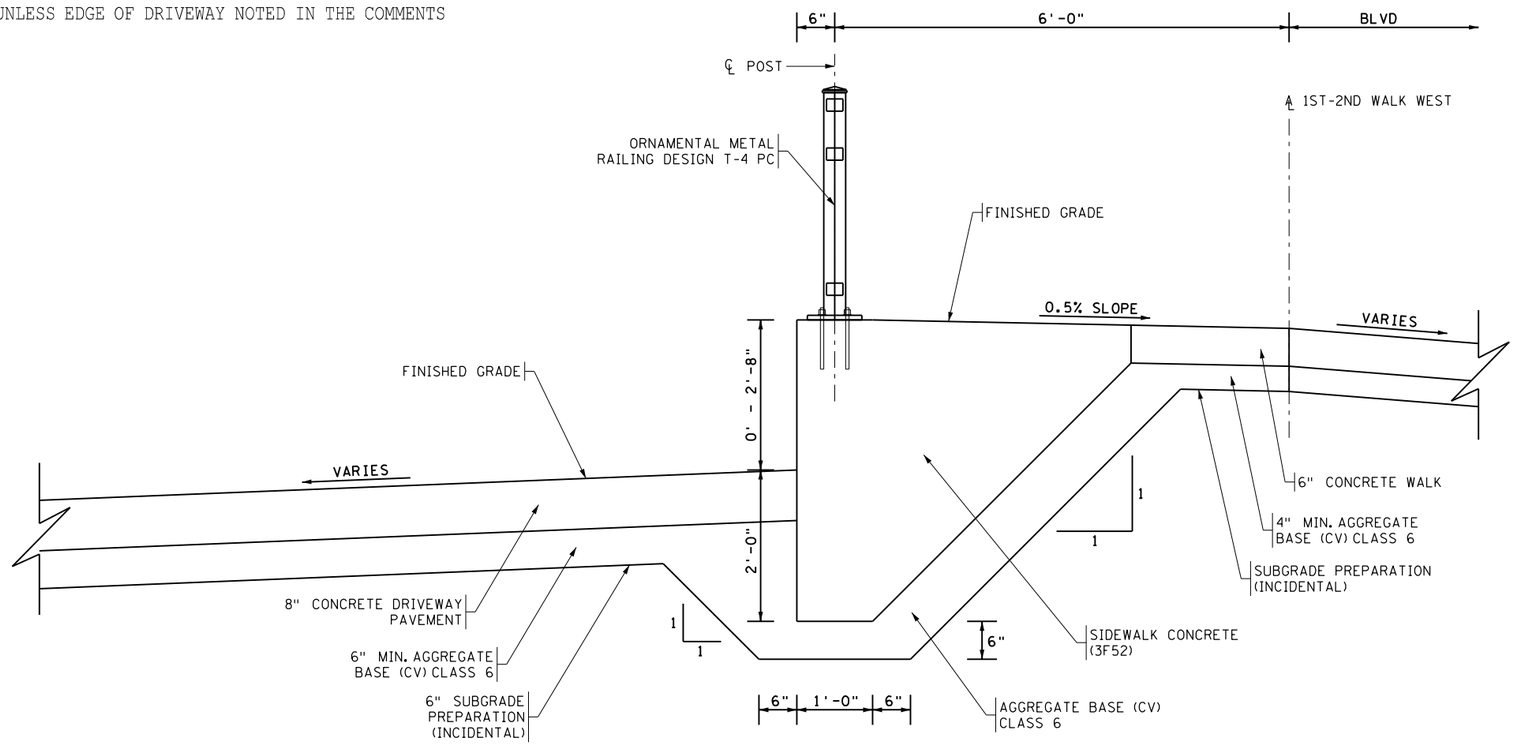
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL SECTIONS

SHEET 28 OF 359

DRIVEWAY TABLE

STATION (1)	SIDE	DRIVEWAY TYPE	CURB TYPE	E1	E2	L1 FT	S1 %	E3	L2 FT	S2 %	E4	L3 FT	S3 %	EXISTING %	E5	COMMENTS
T.H. 41																
98+60.66	LEFT	TIERED PERP	DW CURB TYPE 1	715.85	716.28	1.90	-12.1	716.05	6.5	1.5	716.15	31.18	4.5	3.9	717.55	SOUTH EDGE
98+72.66	LEFT	TIERED PERP	DW CURB TYPE 1	716.04	716.47	4.30	0.5	716.49	6.5	1.5	716.59	31.18	2.8	2.8	717.46	NORTH EDGE
99+17.50	LEFT	TIERED PERP	DW CURB TYPE 1	716.96	717.05	8.35	5.4	717.50	6.5	1.5	717.60	4	3.2	3.4	717.73	
99+81.62	LEFT	PERPENDICULAR	DW CURB TYPE 1	719.77	720.27	8.39	2.4	720.47	6.5	0.5	720.50	15	-5.3	3.5	719.70	
107+09.51	LEFT	PERPENDICULAR	DW CURB TYPE 1	735.56	735.64	9.08	7.4	736.31	6.5	1.5	736.41	4.66	7.7	6.5	736.77	SOUTH EDGE
107+33.59	LEFT	PERPENDICULAR	DW CURB TYPE 1	735.67	735.76	7.33	8.7	736.40	6.5	1.5	736.50	6.41	8.0	8.5	737.01	NORTH EDGE
108+44.65	LEFT	TIERED PERP	DW CURB TYPE 1	736.14	736.22	7.19	7.0	736.72	6.5	1.5	736.82	7.45	5.0	3.9	737.19	
110+30.83	RIGHT	PERPENDICULAR	DW CURB TYPE 1	733.75	733.83	7.0	6.4	734.28	6.5	1.4	734.37	14.03	5.3	5.7	735.11	
115+24.52	RIGHT	TIERED PERP	DW CURB TYPE 1	729.47	729.55	3	6.2	729.74	5	1.5	729.81			-5.6		
119+54.57	RIGHT	TIERED PERP	DW CURB TYPE 1	730.98	731.06	3.33	6.6	731.28	6	1.5	731.37	6.77	1.8	-3.0	731.49	
121+17.92	RIGHT	TIERED PERP	DW CURB TYPE 1	732.59	732.68	3.33	7.2	732.92	6	1.5	733.01	10.39	3.8	3.3	733.40	
C.S.A.H. 61																
22+07.94	RIGHT		DW CURB TYPE 1													NO SIDEWALK/CONNECTION TO PARKING LOT
26+25.26	LEFT	TIERED PERP	DW CURB TYPE 1	727.01	727.09	10	2.7	727.36	6.5	1.5	727.46	4	3.0	3.0	727.58	
28+43.56	LEFT	TIERED PERP	DW CURB TYPE 1	727.50	727.59	10	-3.3	727.26	6.5	-1.5	727.16	3	-3.7	-1.5	727.05	

NOTES:
(1) STATION VALUE AT CENTERLINE OF DRIVEWAY UNLESS EDGE OF DRIVEWAY NOTED IN THE COMMENTS



ELEVATED CONCRETE SIDEWALK DETAIL

STA 99+90 TO 100+48

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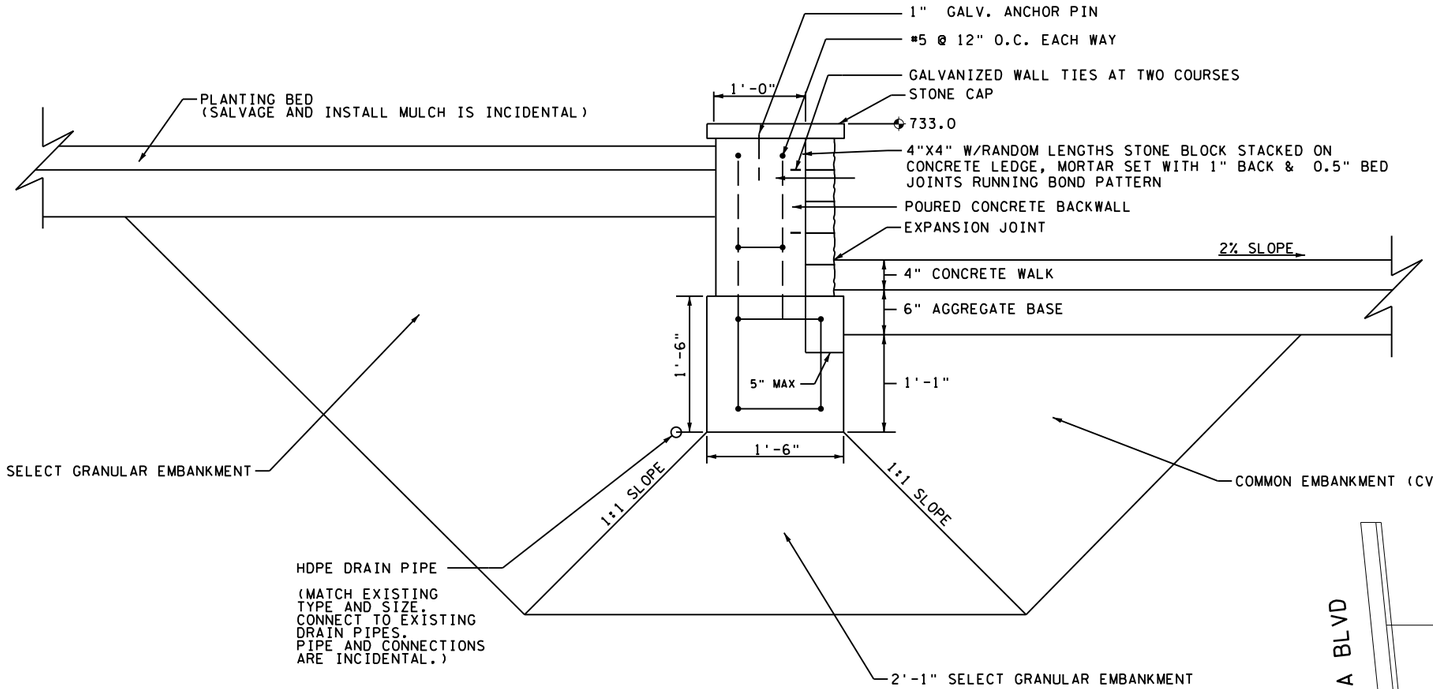
DENA M. KING LIC. NO. 45859 DATE 03-02-2022

DESIGNED BAU
DRAWN TWB
CHECKED DMK

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
MISCELLANEOUS DETAILS

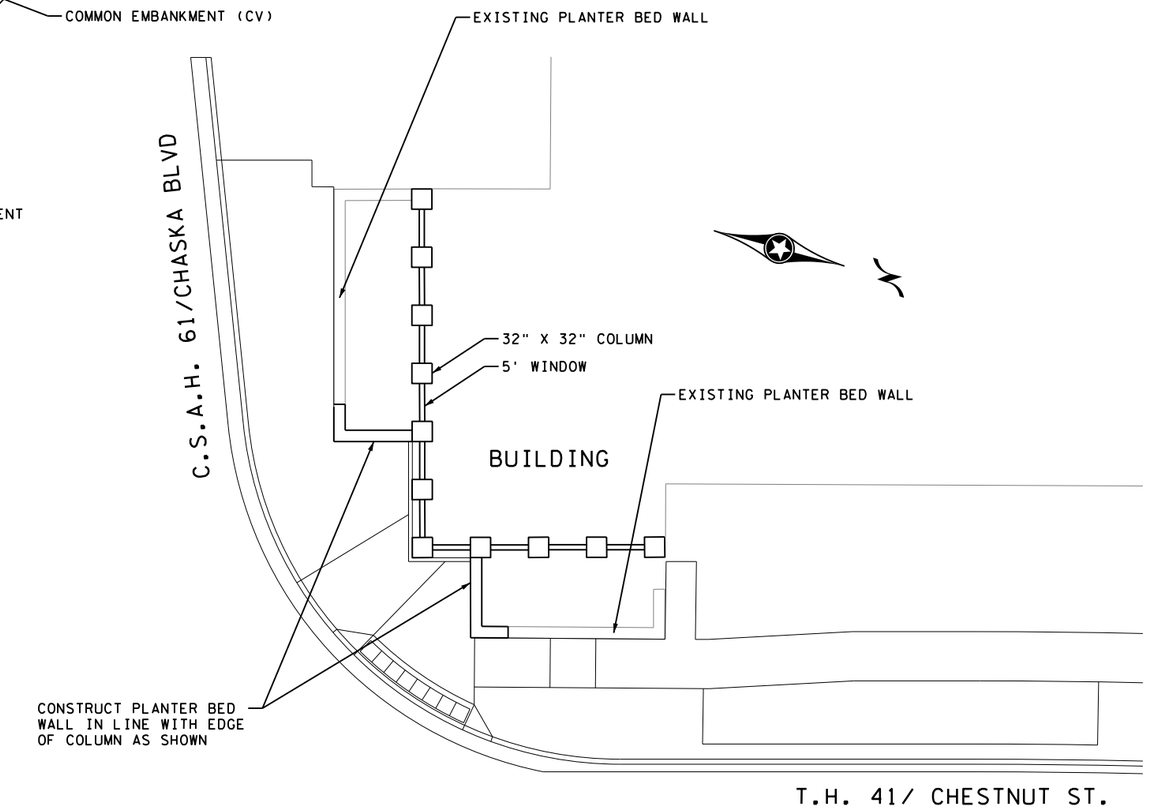
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7.B Adopt Resolution 2022-48, Approve...
Packet Page 58 of...
Page 30 of...



CONCRETE PLANTER WALL DETAIL

CHASKA CURLING CENTER



CONCRETE PLANTER WALL PLAN VIEW

CHASKA CURLING CENTER

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MISCELLANEOUS DETAILS

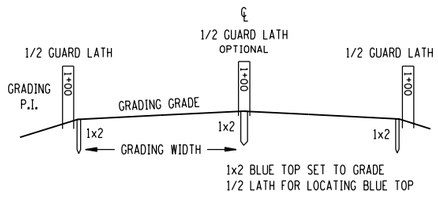
SHEET 30 OF 359

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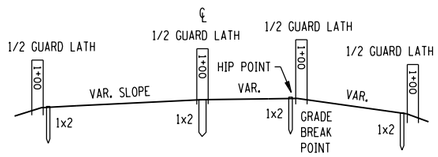
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BLUE TOPS

NORMAL SECTION

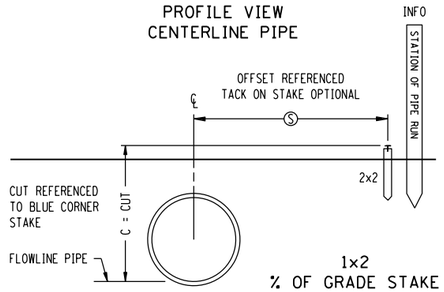


TRANSITION SECTION

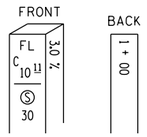


PIPE STAKING

PROFILE VIEW CENTERLINE PIPE

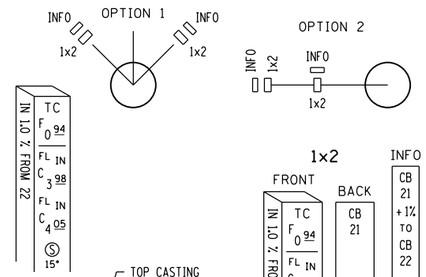


1x2 % OF GRADE STAKE



CATCH BASIN OR MANHOLE (CB/MH)

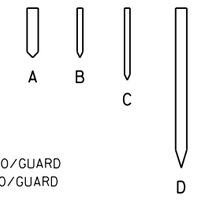
TOP VIEWS



FLOWLINE/INVERT + 0.7'

STANDARD STAKES

TYPES:
REFERENCE (REF)
INFORMATIONAL (INFO)
VISIBILITY (VIS)
GUARD (GUARD)



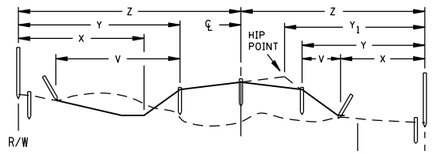
SIZES:
A = 2" X 2" X VAR. REF/INFO/GUARD
B = 1" X 2" X VAR. REF/INFO/GUARD
C = 1" X 2" X VAR. REF
D = LATH INFO/VIS/GUARD
1x2 OR LATH = INFO STAKES

ABBREVIATIONS

BBL = BARREL (PIPE)
B.C. = BACK CURB
C & G = CURB & GUTTER
C = CUT
CAP = CORR. ALUM. PIPE
CB = CATCH BASIN
℄ = CENTERLINE
CL & GR = CLEAR & GRUB
CMP = CORR. METAL PIPE
COR = CORNER
CR = CROWN
CSP = CORR. STEEL PIPE
℄ = DITCH CUT
D.E. = DRAINAGE EASEMENT
DI = DROP INLET
EB = EASTBOUND
E.M. = EDGE BITUMINOUS MAT
E.S. = EDGE CONCRETE SLAB
F = FILL
FF = FRONT FACE
FL = FLOW LINE
FL IN = FLOWLINE INLET
FL OUT = FLOWLINE OUTLET
GR = GRADE
GW = GRADING WIDTH
HH = HANDHOLE
HP = HIP POINT
LT = LEFT
MH = MANHOLE
NB = NORTHBOUND
Ⓢ = OFFSET
PAR = PARCEL
% = PERCENT GRADE
P.E. = PERM. EASEMENT
RAD = RADIUS POINT
RCP = REINF. CONC. PIPE
RP = REFERENCE POINT
RSC = REINF. SECT. CONC.
RT = RIGHT
R/W = RIGHT OF WAY
SB = SOUTHBOUND
SCP = SECT. CONC. PIPE
SH = SHOULDER
TC = TOP CASTING OR TOP CURB
T.E. = TEMP. EASEMENT
3 :1 = SLOPE (EXAMPLE)
WB = WESTBOUND
WP = WORKING POINTS

SLOPE STAKES

SINGLE ROADWAY - EXAMPLE 'A'



STAKE 'A'

FULL LATH AND HUB-STATION
DIST. TO ℄ WITH CUT/FILL TO ℄ (Z)
DIST. TO SHLD. WITH CUT/FILL TO SHLD. (Y) (Y1)
DIST. TO TOE OF SLOPE, CUT/FILL FROM HUB (X)
OFFSET TO SAFTY SLOPE
OFFSET TO HIP POINT

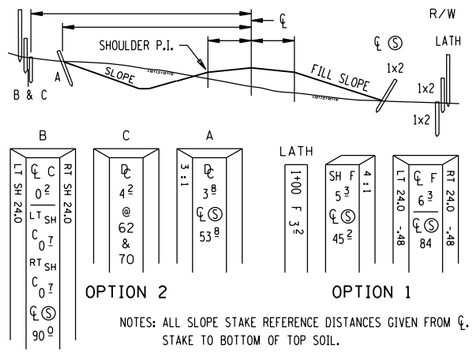
STAKE 'B'

FULL LATH
DITCH CUT/SHLD. FILL
SLOPE RATED
DISTANCE TO INSLOPE TOE (V1) OR SHOULDER (AS APPLIES) (V)

NOTE:
BLUE TOPS REQUIRED ON ℄ AND BOTH SHOULDERS AT MINIMUM
ALL CULVERTS TO BE STAKED
MINIMUM DATA TO BE PROVIDED
STAKE TO BOTTOM OF TOPSOIL

SLOPE STAKES

SINGLE ROADWAY - EXAMPLE 'B'

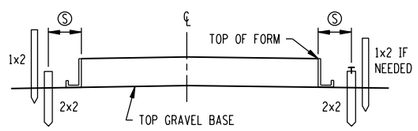


OPTION 2 OPTION 1

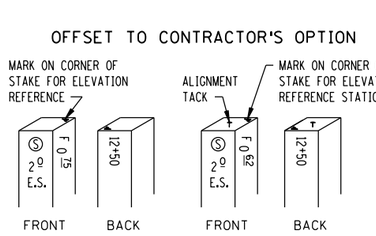
NOTES: ALL SLOPE STAKE REFERENCE DISTANCES GIVEN FROM ℄. STAKE TO BOTTOM OF TOP SOIL.

KEY STAKES: BLUE TOP SET AT R/W BOUNDARY LT. & RT. MAY BE EXCEPTIONS TO SETTING STAKE ON R/W.

CONCRETE PAVING STATIONARY FORM



OFFSET TO CONTRACTOR'S OPTION



NOTE INFORMATION ON STAKE IF NECESSARY

RECOMMENDED STAKING INTERVALS

FIGURE A

	SLOPE STAKES	SUB GRADE B.T.	CLASS MATERIAL B.T.	CONC PAVT	C & G	CL & GR LIMITS	MUCK EXC.	R/W	TEMP. EASE.
TANGENT	100	100	100	50	50	ALL CORNERS	100	ALL CORNERS	ALL CORNERS
HORIZ. CURVE									
0 - 3°	100	100	100	50	50	ALL CORNERS	100	ALL CORNERS	ALL CORNERS
OVER 3° -	100	50	50	25	25	ALL CORNERS	100	ALL CORNERS	ALL CORNERS
VERT. CURVE									
'M' 100' CHORD 0 - .25	100	100	100	50	50				
'M' OVER .25	100	50	50	25	25				
TRAN.		50	50						

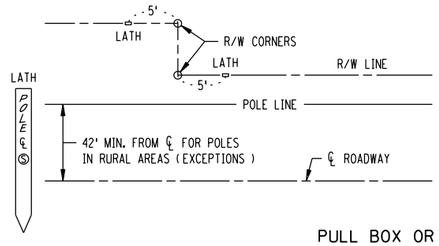
STAKING TOLERANCES (FEET)

	HORIZONTAL	VERTICAL
CONSTRUCTION LIMITS	± 1.5	
CLEARING & GRUBBING	2.0	
SLOPES STAKES	2.0	± 0.2
KEY STAKES	0.2	0.03
DRAINAGE STAKES	0.05	0.05
CURB & GUTTER	0.07	0.03
PAVING	0.05	0.03
ALIGNMENT	0.07	
UTILITY	0.10	0.05
STRUCTURAL	0.02	0.02
GUARD RAIL	0.5	
BUILDINGS	0.04	
O.H. SIGNS	0.05	0.05
MUCK EXCAVATION LIMITS	2.0	
R/W B-POINTS	0.10	
NOISE WALLS	1.0	0.5

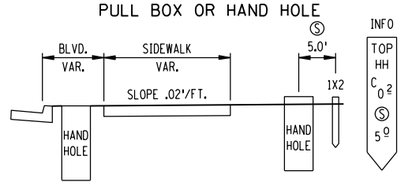
THE TOLERANCES ARE RELATIVE TO PROJECT DATUM

UTILITY (UTIL)

STAKE POLES MINIMUM OF 5 FT. FROM ANY R/W CORNER
EXAMPLE: POLE LINE = R/W LINE

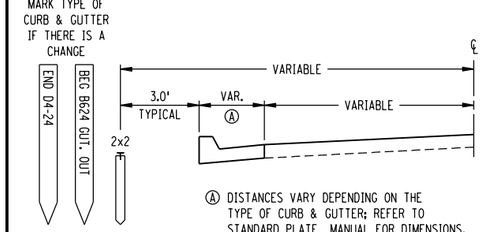


PULL BOX OR HAND HOLE

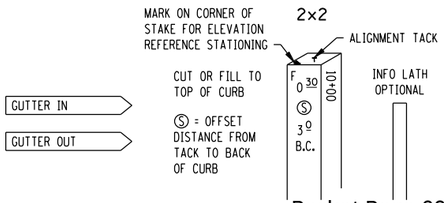


CURB & GUTTER (CURB)

OPTIONAL LATH WHEN NEEDED TO MARK TYPE OF CURB & GUTTER IF THERE IS A CHANGE

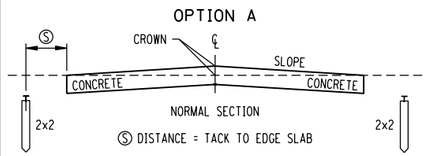


Ⓐ DISTANCES VARY DEPENDING ON THE TYPE OF CURB & GUTTER; REFER TO STANDARD PLATE MANUAL FOR DIMENSIONS.

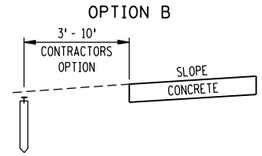


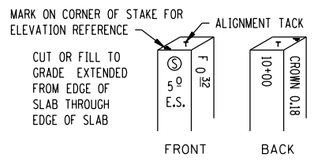
CONCRETE PAVING - SLIP FORM

OPTION A



OPTION B





DISCLAIMER

THESE STAKING INFORMATION SHEETS ARE FOR INFORMATION PURPOSES ONLY. STAKING PROCEDURES VARY AND MAY BE SUBJECT TO CHANGE DURING CONSTRUCTION BY CIRCUMSTANCES AND/OR AGREEMENTS BETWEEN SURVEY CREW AND CONTRACTOR.

REVISION:

APPROVED: 8-6-2014
STATE DESIGN ENGINEER

REVISED:

APPROVED: 8-6-2014
STATE DESIGN ENGINEER

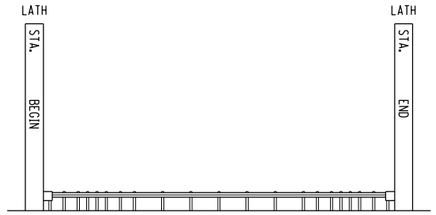
STAKING INFORMATION SHEET

STANDARD PLAN 5-297.115 | 1 OF 2

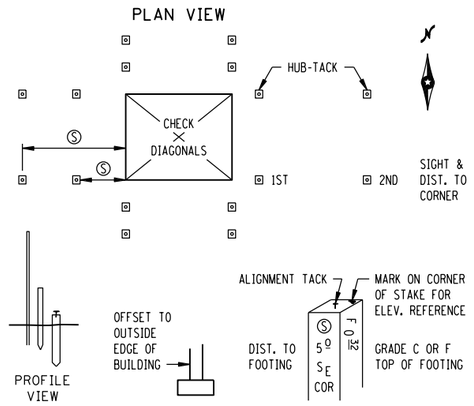
SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 31 OF 359 SHEETS

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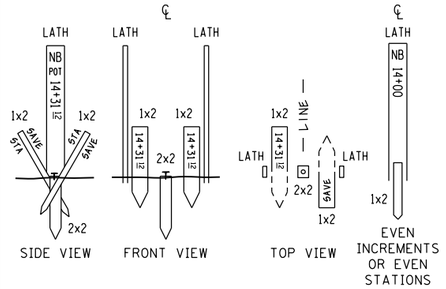
GUARDRAIL (GUARD)



BUILDING (BUILD) FOUNDATION / FOOTING



ALIGNMENT POINTS (ALIGN)



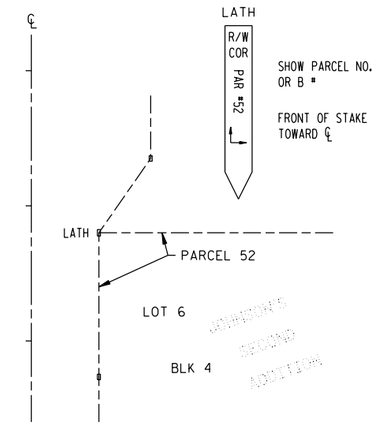
STAKE C = 2" X 2" HUB (LENGTH MAY VARY) SET AS TEMPORARY STAKE. MAY BE REPLACED BY MnDOT MARKER AFTER CONSTRUCTION IS COMPLETED.

SET AT GROUND LEVEL (TEMPORARY CONSTRUCTION STAKE).

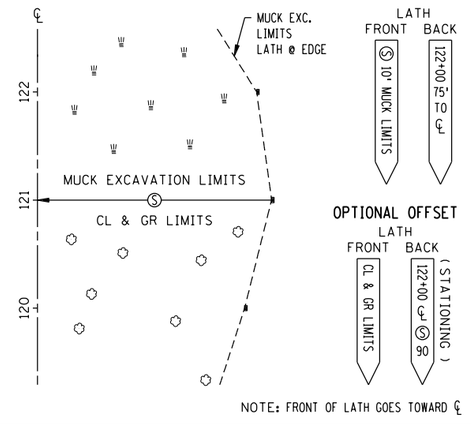
TACK SET AT ALIGNMENT POINTS.

STAKE A = GUARD STAKES SET AT ANGLE IN GROUND 6" EACH SIDE OF STAKE D, WITH STATIONING READ WHEN LOOKING UP STATION.

R/W & TEMP. EASEMENT (R/W)

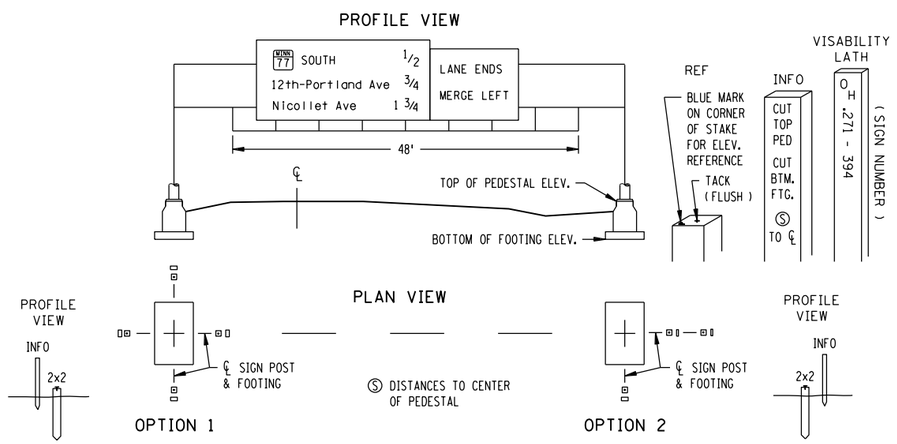


CLEAR & GRUBBING LIMITS (CLEAR) OR MUCK EXCAVATION LIMITS (MUCK)



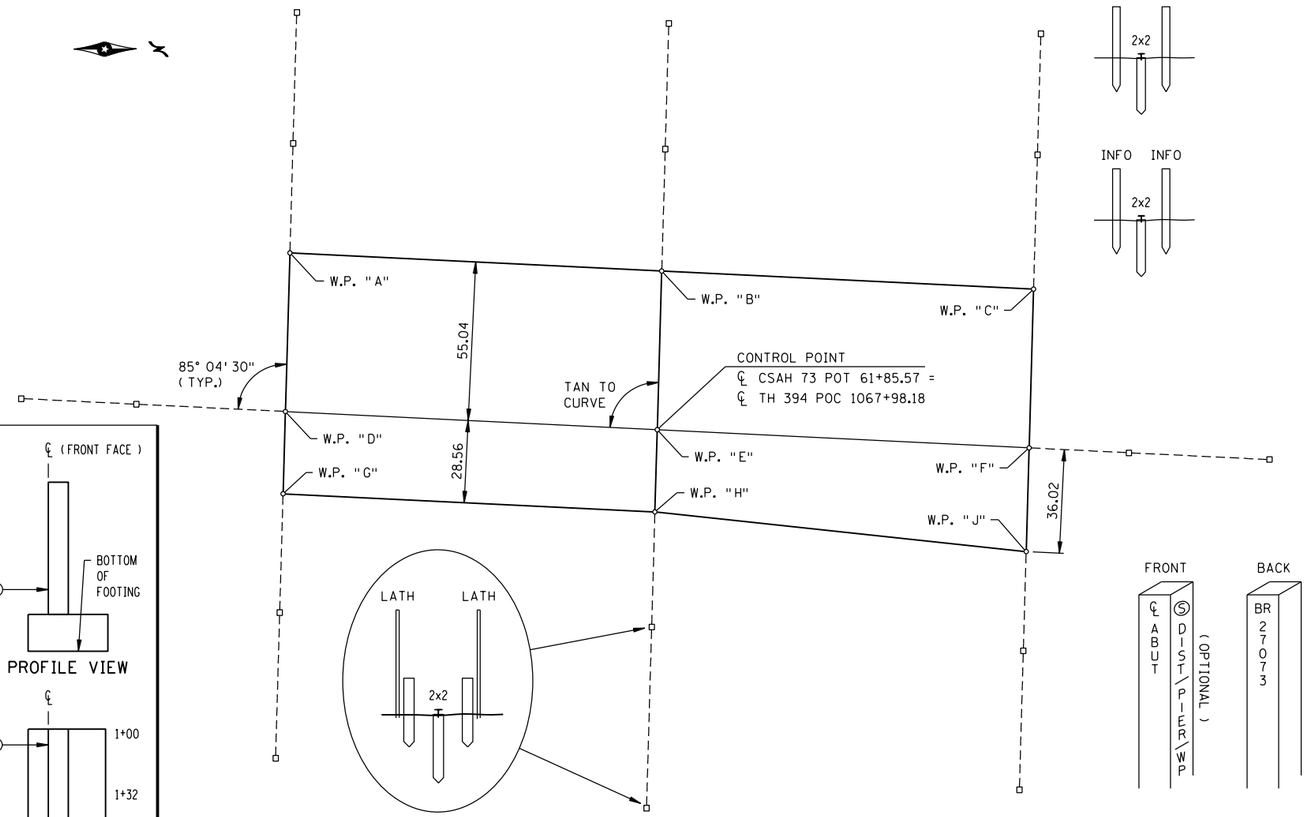
NOTE: FRONT OF LATH GOES TOWARD ℄

OVERHEAD SIGNS (SIGN)

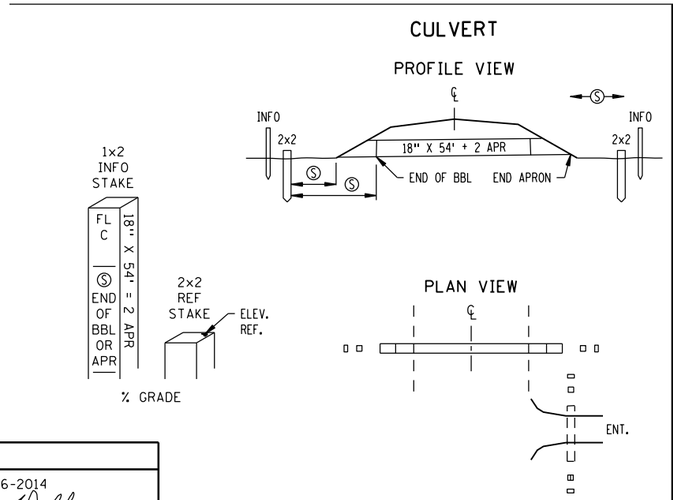


BRIDGESTAKING (BRIDGE)

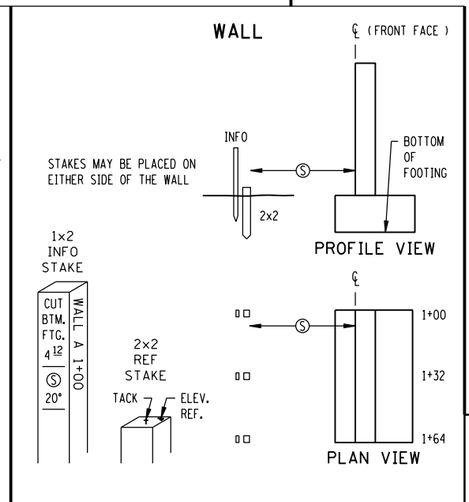
WORKING POINTS LAYOUT



CULVERT



WALL



REVISION:

APPROVED: 8-6-2014

REVISED:

APPROVED: 8-6-2014

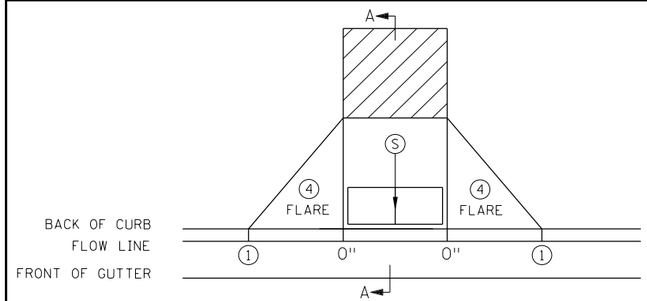
STATE DESIGN ENGINEER

STAKING INFORMATION SHEET

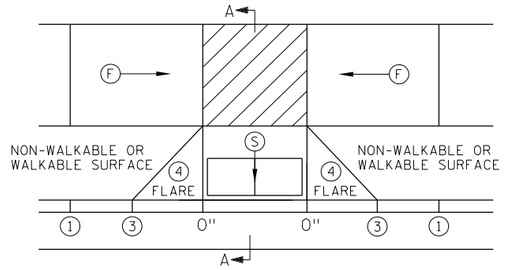
STANDARD PLAN 5-297.115 | 2 OF 2

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 32 OF 359 SHEETS

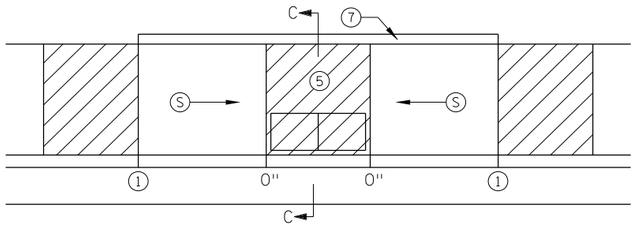
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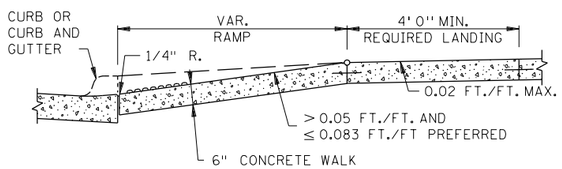
PERPENDICULAR



TIERED PERPENDICULAR

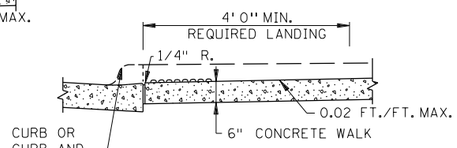


PARALLEL



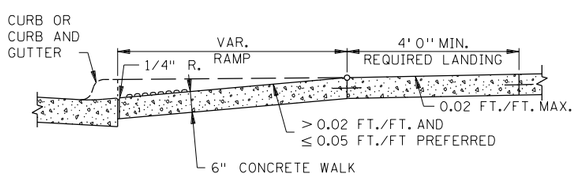
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



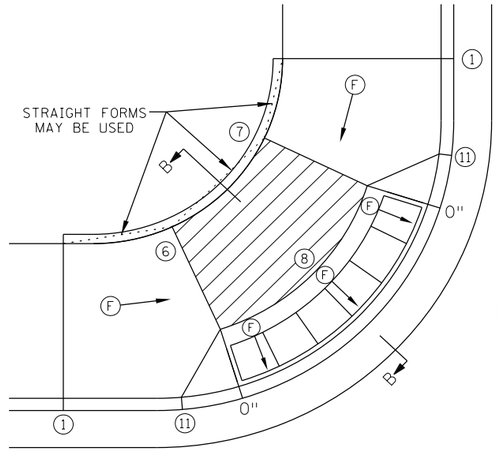
SECTION C-C

PARALLEL/DEPRESSED CORNER

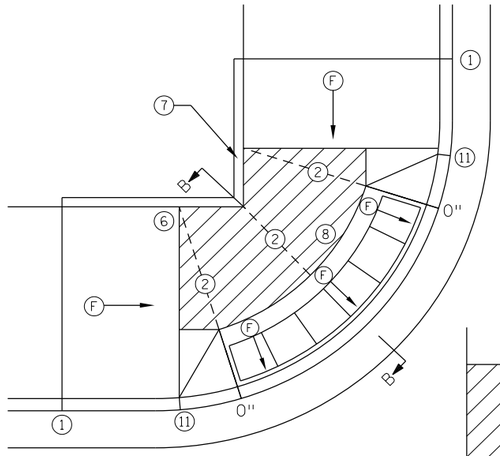


SECTION B-B

FAN

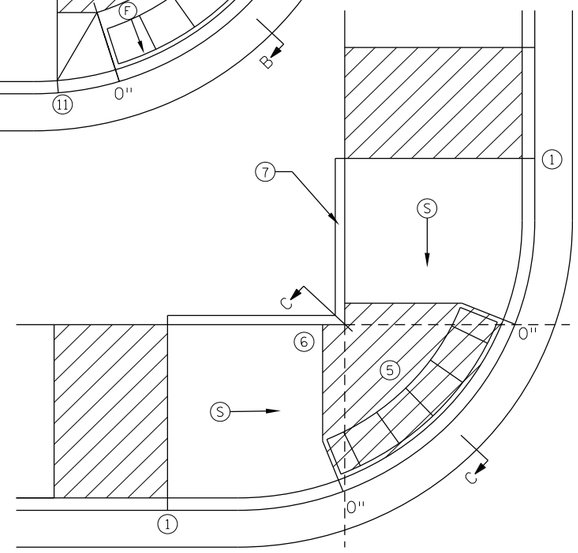


FAN ⑩

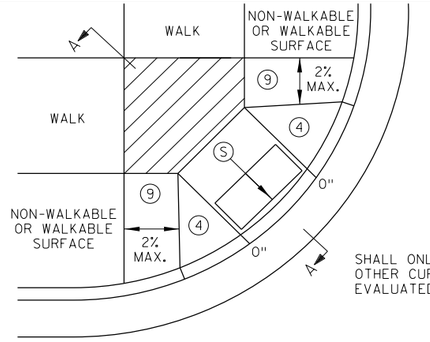


MODIFIED FAN ⑩

USED WHEN RIGHT-OF-WAY
IS CONSTRAINED



DEPRESSED CORNER



DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE. ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.

② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.

③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.

④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.

⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.

⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)

⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.

⑨ PAVE FULL WALK WIDTH.

⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | **1 OF 6**

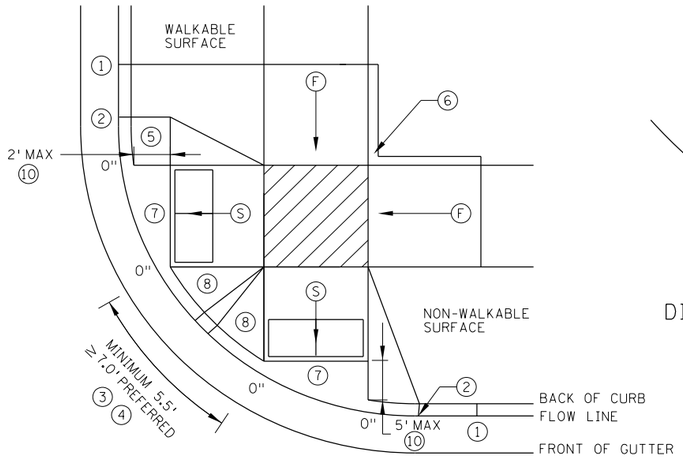
APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

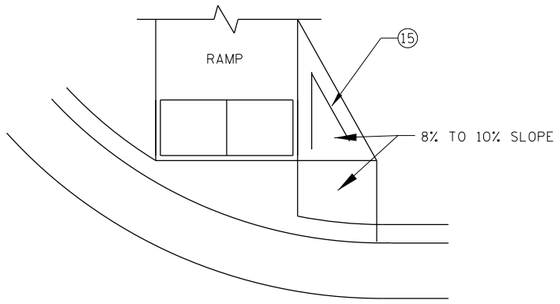
PEDESTRIAN CURB RAMP DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 33 OF 359 SHEETS

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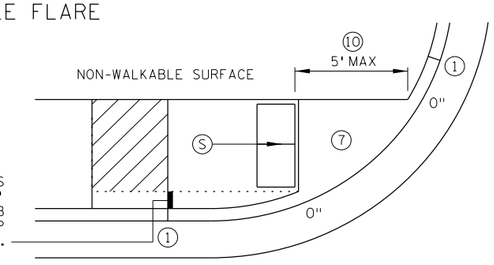


COMBINED DIRECTIONAL

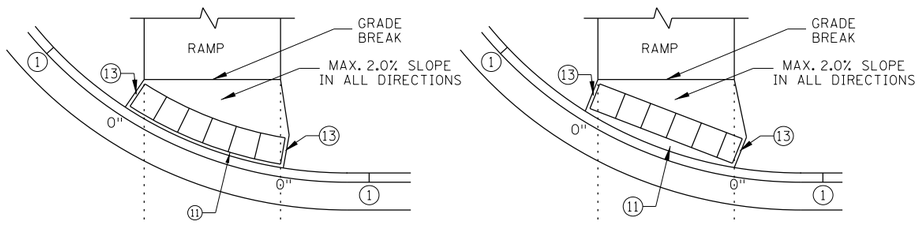


DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

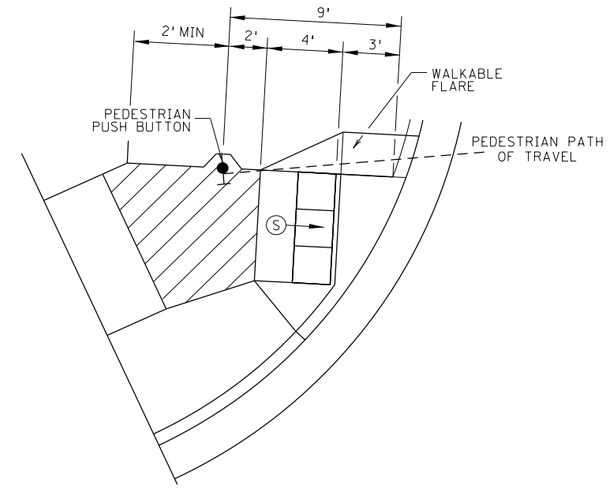


STANDARD ONE-WAY DIRECTIONAL ⑨



DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

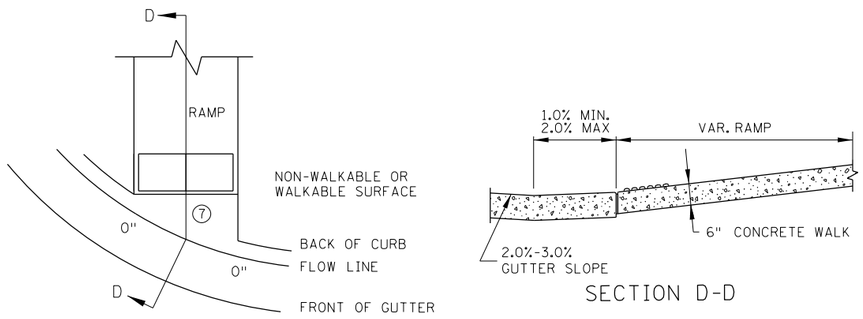
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)



SECTION D-D

CURB FOR DIRECTIONAL RAMPS ⑭

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

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STATE DESIGN ENGINEER

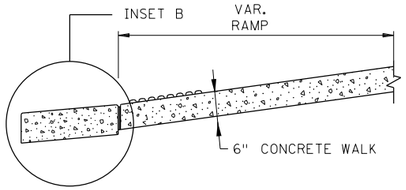
STANDARD PLAN 5-297.250 | **2 OF 6**

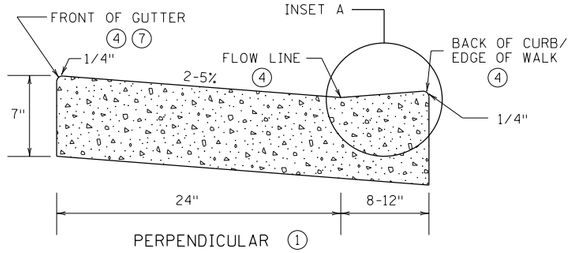
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PEDESTRIAN CURB RAMP DETAILS

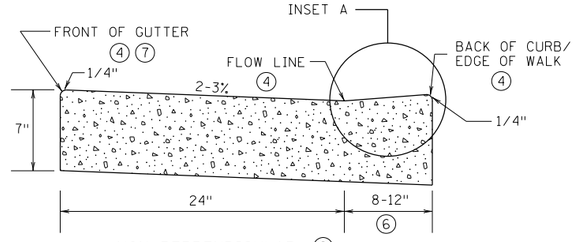
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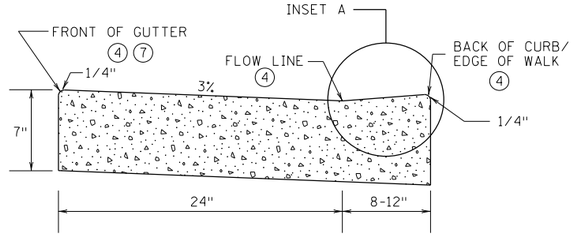




PERPENDICULAR ①

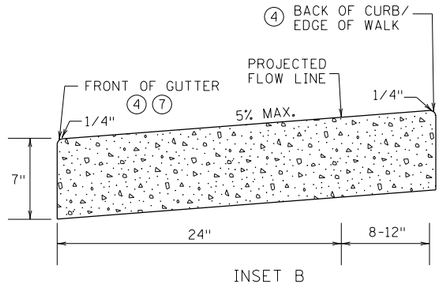


NON PERPENDICULAR ②

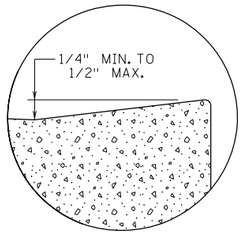


FOR CURB MACHINE PLACEMENT AROUND RADIUS ③
(REGARDLESS OF RAMP TYPE)

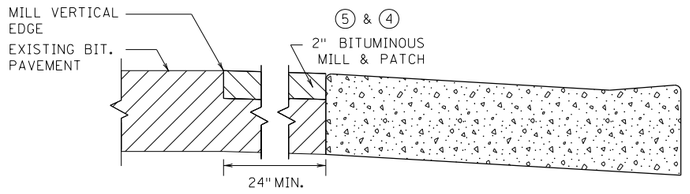
PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL

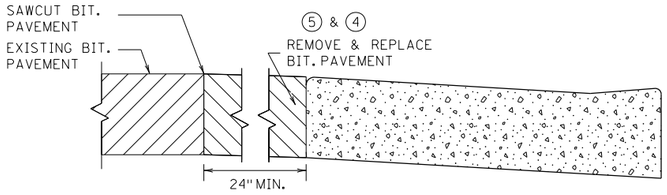


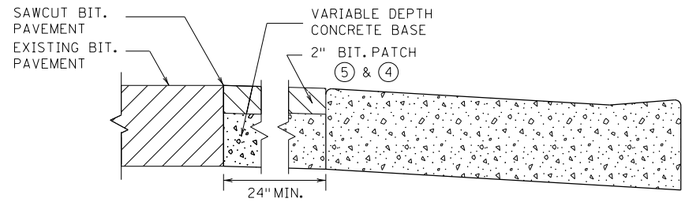
INSET B
OUTFLOW GUTTER ⑧



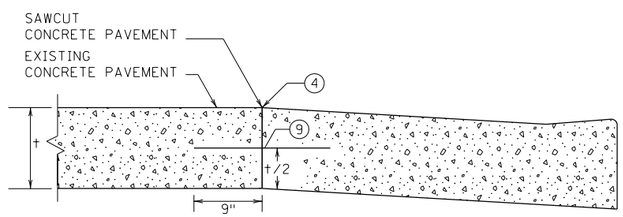
INSET A





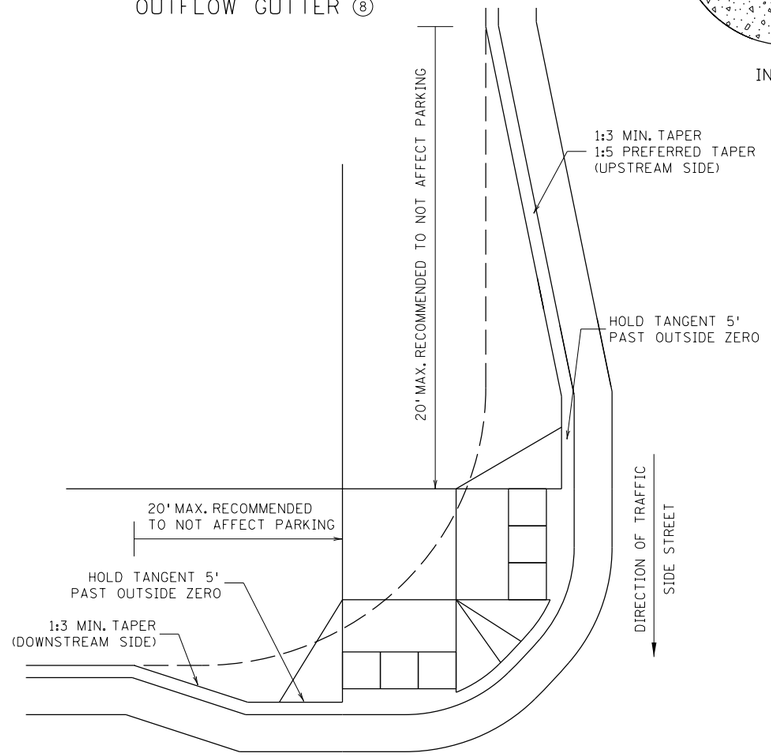


ONLY ALLOWED PER ENGINEER'S APPROVAL

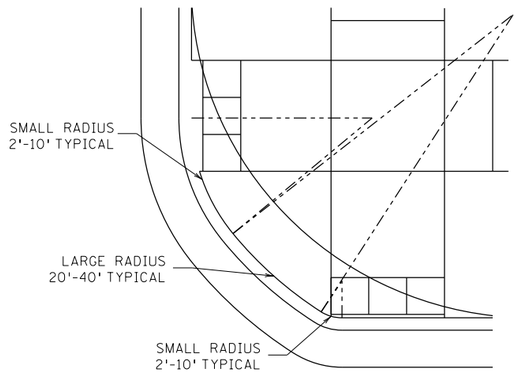


PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS



ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) ⑪



COMBINED DIRECTIONAL ⑩
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.

NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

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JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 3 OF 6

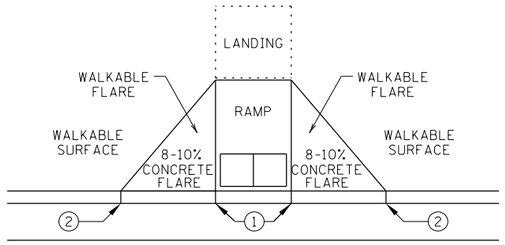
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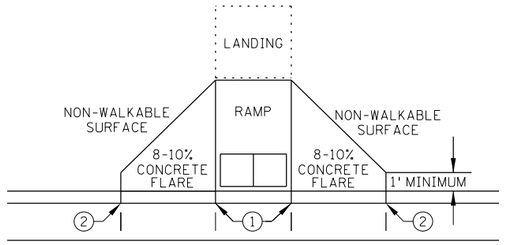
PEDESTRIAN CURB RAMP DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 35 OF 359 SHEETS

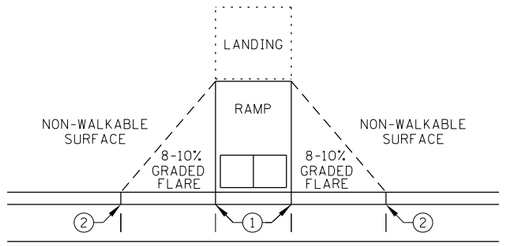
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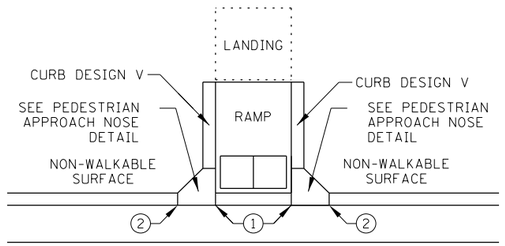
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

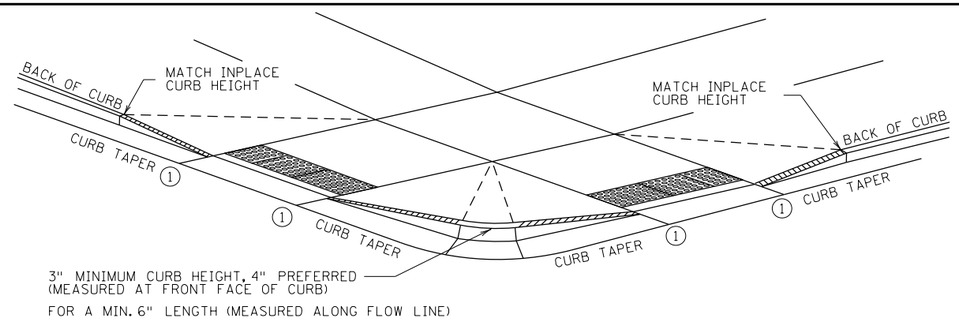


GRADED FLARES

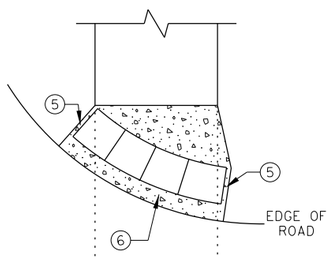


RETURNED CURB ④

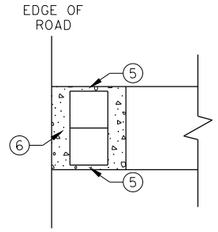
TYPICAL SIDE TREATMENT OPTIONS ③ ⑩



DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

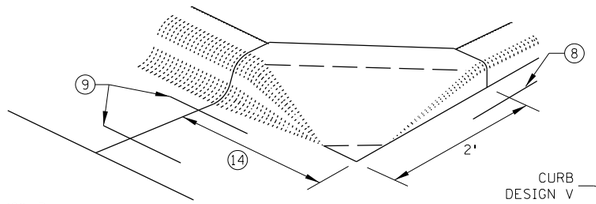


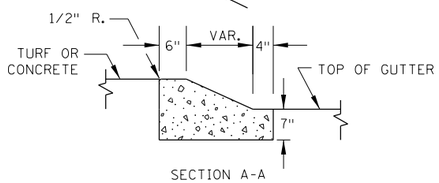
RADIAL DETECTABLE WARNING



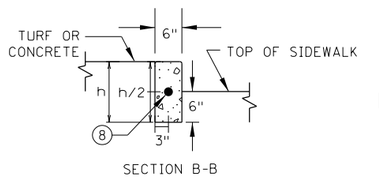
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

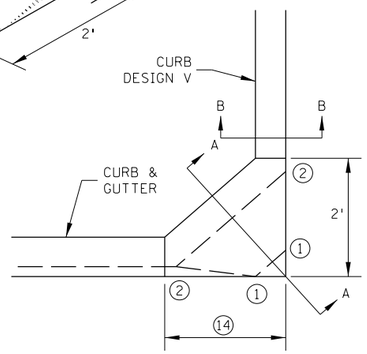




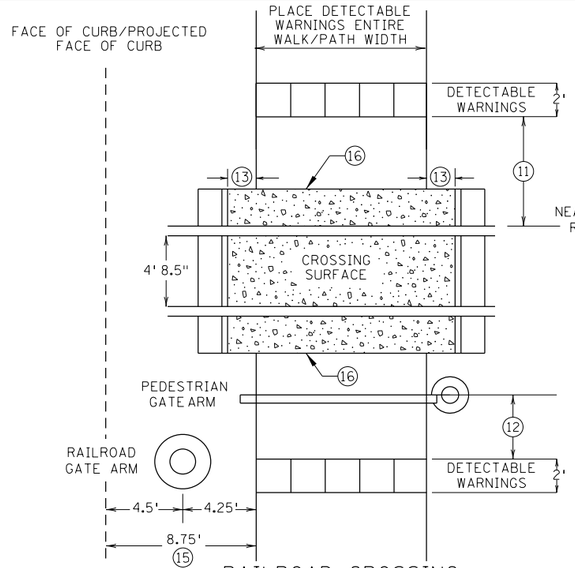
SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | **4 OF 6**

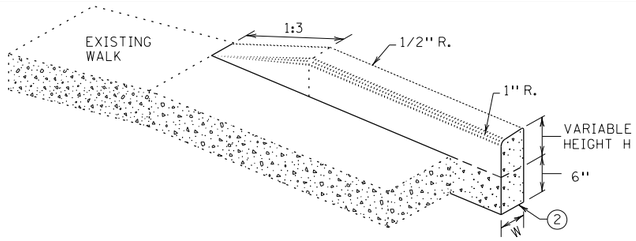
APPROVED: 11-04-2021
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THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

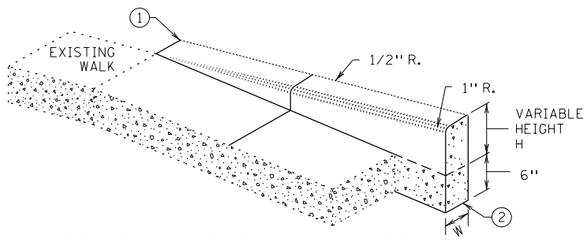
SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 36 OF 359 SHEETS

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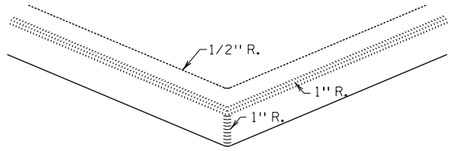
V CURB ADJACENT TO LANDSCAPE

CURB WITHIN SIDEWALK LIMITS



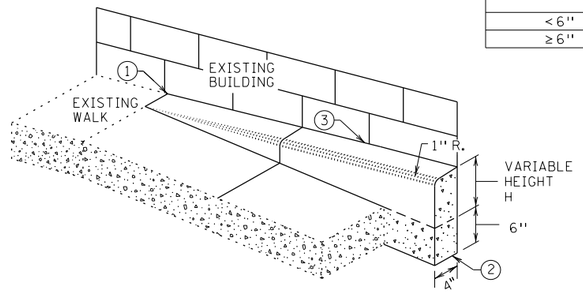
V CURB ADJACENT TO LANDSCAPE

CURB OUTSIDE SIDEWALK LIMITS

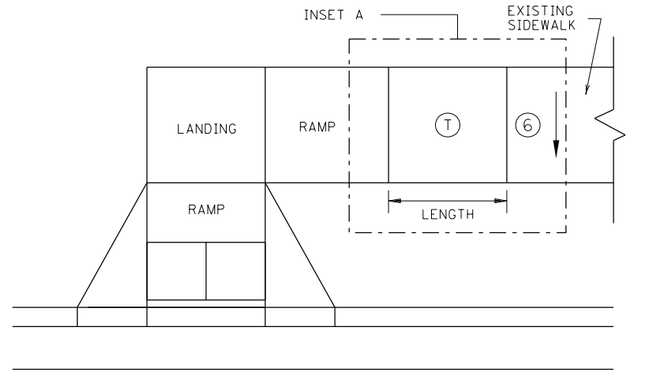


V CURB INTERSECTION

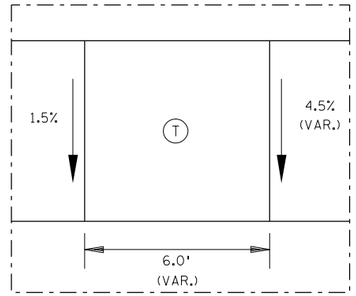
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



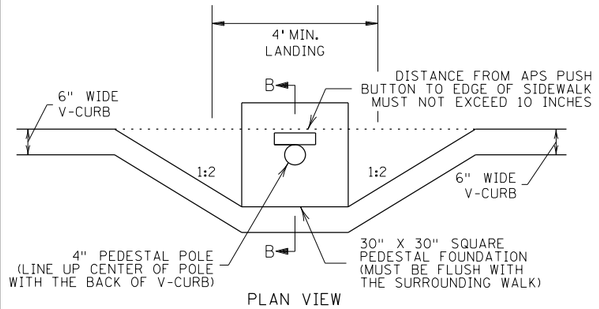
V CURB ADJACENT TO BUILDING OR BARRIER



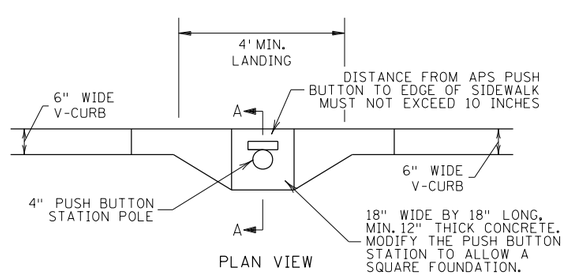
TRANSITION PANEL ④⑤



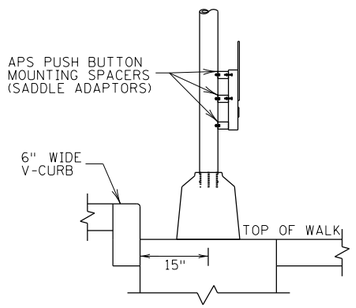
INSET A



PLAN VIEW

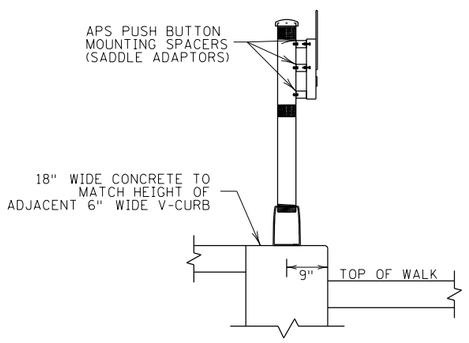


PLAN VIEW



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

(1) END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

(2) ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

(3) CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.

(4) THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

(5) TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

(6) EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.
(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
(T) TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

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JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

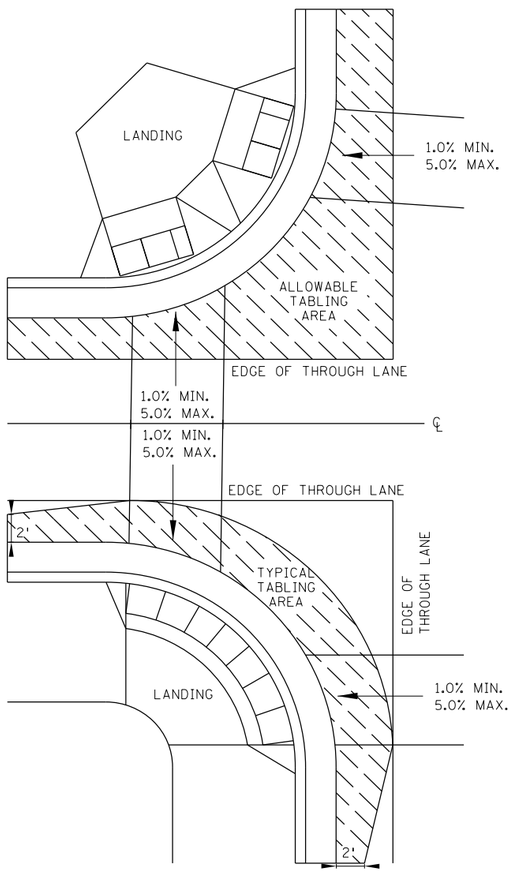
STANDARD PLAN 5-297.250 | 5 OF 6

APPROVED: 11-04-2021
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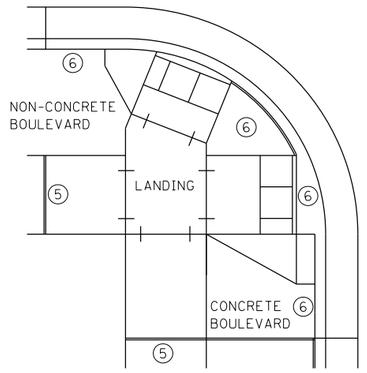
THOMAS STYRBICKI
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PEDESTRIAN CURB RAMP DETAILS

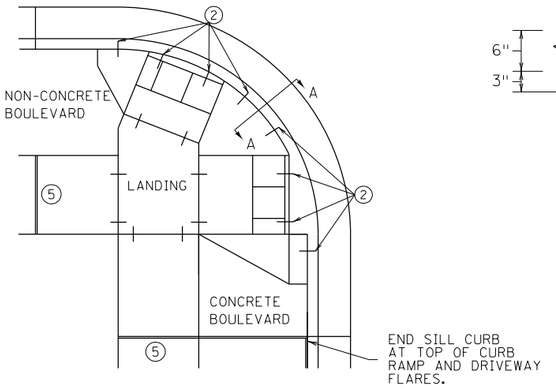
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CURB LINE AND ROAD CROSSING ADJUSTMENTS



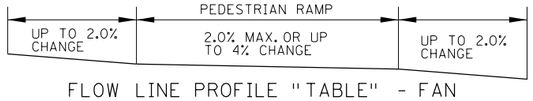
EXPANSION MATERIAL PLACEMENT
FOR CONCRETE ROADWAYS



CURB LINE REINFORCEMENT ④
PLACEMENT ON BITUMINOUS ROADWAYS



FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



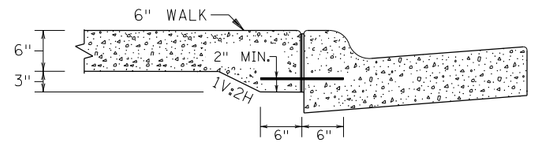
FLOW LINE PROFILE "TABLE" - FAN



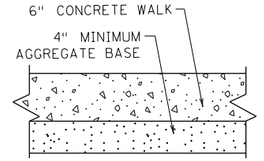
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



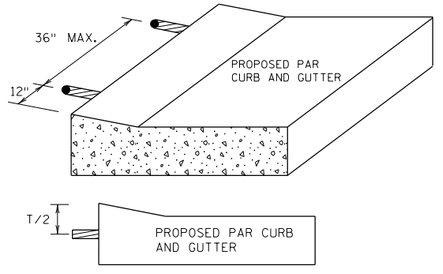
FLOW LINE PROFILE RAISE - FAN



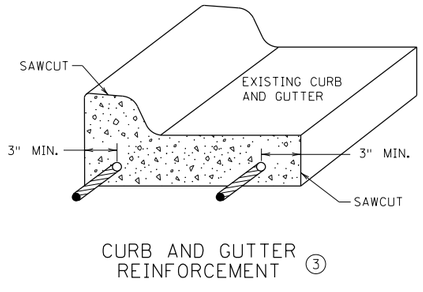
SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



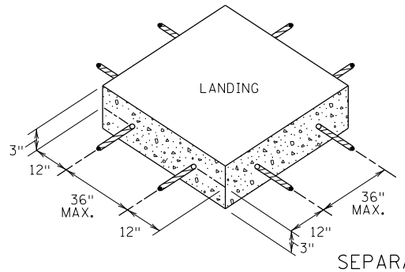
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

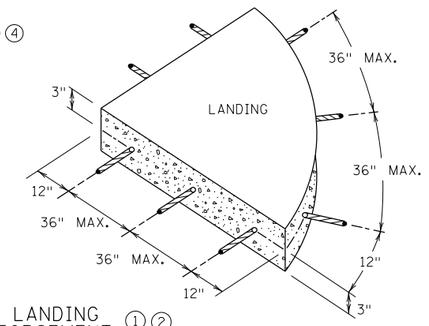


CURB RAMP REINFORCEMENT DETAILS ②④



CURB AND GUTTER
REINFORCEMENT ③





SEPARATE LANDING
POUR REINFORCEMENT ①②

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.

④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.

⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:

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JEFFREY PERKINS
OPERATIONS DIVISION

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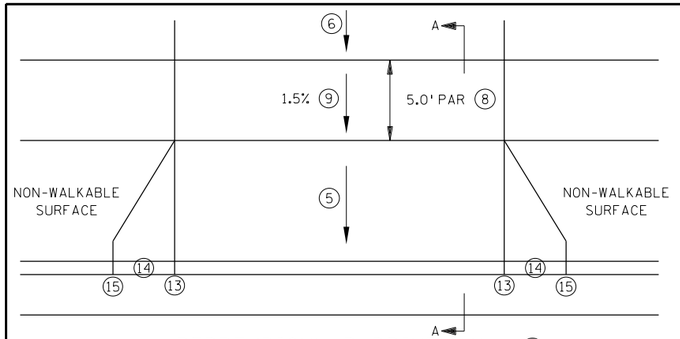
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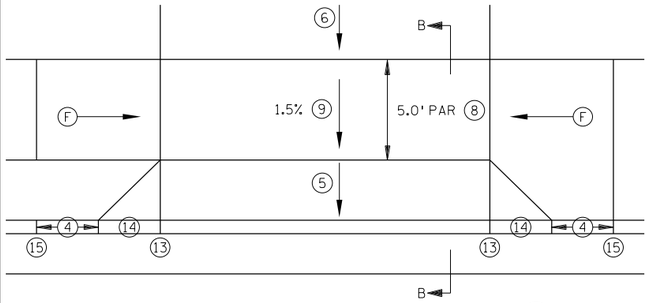
PEDESTRIAN CURB RAMP DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 38 OF 359 SHEETS

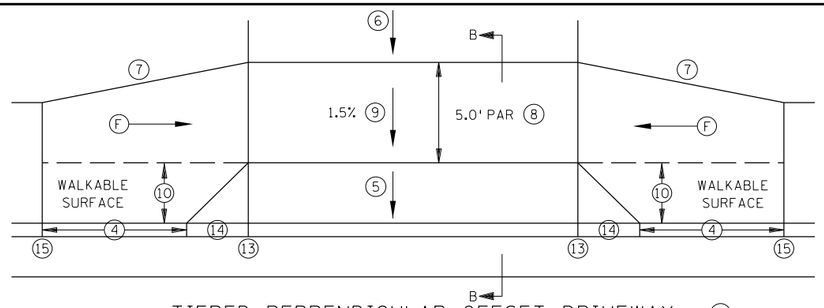
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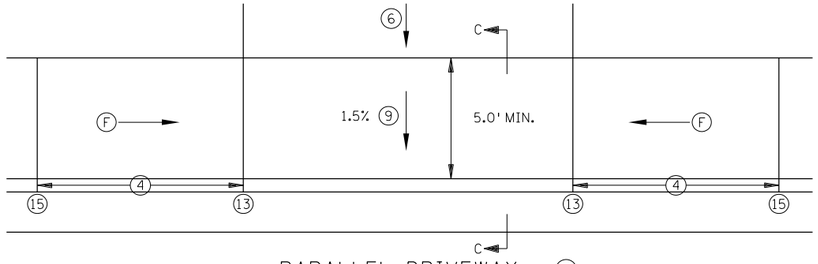
PERPENDICULAR DRIVEWAY ①



TIERED PERPENDICULAR DRIVEWAY ②



TIERED PERPENDICULAR OFFSET DRIVEWAY ②



PARALLEL DRIVEWAY ③

LEGEND	
Ⓕ	INDICATES DRIVEWAY RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%

NOTES:

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURE FROM BACK OF CURB.

IN URBAN ROADWAY SECTIONS, 6" CURB HEIGHT SHOULD BE USED WHEN 6' OR GREATER BOULEVARD WIDTH IS PROPOSED. WHEN BOULEVARD IS LESS THAN 6' WIDE, 4" CURB HEIGHT SHOULD BE USED.

MAINTAIN EXISTING DRAINAGE PATTERNS FLOWING TO PUBLIC RIGHT OF WAY.

ACQUIRE ADEQUATE L3 TO ALLOW FOR A CONTINUOUS PAR PROFILE (UNIFORM TYPICAL SIDEWALK SECTION) THROUGH THE DRIVEWAY APRON.

IN NO CASE SHALL SIDEWALK PROFILES EXCEED 5.0%, EXCEPT SIDEWALK PROFILES CAN MATCH ROADWAY GRADE IF ROADWAY GRADE IS GREATER THAN 5.0%. RAMPS FOR DRIVEWAYS ARE REQUIRED TO FOLLOW THE ABOVE SIDEWALK CRITERIA.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PEDESTRIAN ACCESS ROUTE (PAR). 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

DRIVEWAY TYPES FROM MOST PREFERRED TO LEAST PREFERRED ARE AS FOLLOWS: PERPENDICULAR, TIERED PERPENDICULAR, TIERED PERPENDICULAR OFFSET & PARALLEL.

① PERPENDICULAR DRIVEWAYS ARE THE STANDARD AND STARTING POINT FOR ALL DRIVEWAY DESIGN AND CONSTRUCTION. SHOULD BE USED TO ACHIEVE CONTINUOUS PAR PROFILE THROUGH THE DRIVEWAY. OBTAINING A PERPENDICULAR DRIVEWAY DESIGN BECOMES MORE CRITICAL WITH STEEP ROADWAY PROFILES.

② TO BE USED WHEN PERPENDICULAR DRIVEWAY DESIGN CANNOT BE ACHIEVED, THE DRIVEWAY PAR IS BELOW ROADWAY CURB HEIGHT. THIS DRIVEWAY TYPE CAN BE USED FOR BOTH PAVED (AS SHOWN) AND GRASS BOULEVARDS.

③ TO BE USED WHEN PERPENDICULAR AND TIERED PERPENDICULAR DRIVEWAY DESIGN CANNOT BE ACHIEVED. CAN BE USED FOR STEEP NEGATIVE SLOPED DRIVEWAYS. DW CURB TYPE 2 SHOULD BE USED TO RAISE PAR ABOVE GUTTER AND REDUCE "ROLLER COASTER" EFFECT. 4" HIGH ROADWAY CURB SHOULD BE USED TO REDUCE "ROLLER COASTER" EFFECT ESPECIALLY WHEN MULTIPLE DRIVEWAYS ARE PRESENT.

④ TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

⑤ 8% STANDARD, 10% MAX. FOR COMMERCIAL AND 12% MAX. FOR RESIDENTIAL. SEE GENERAL NOTES ON SHEET 2 FOR MORE INFORMATION.

⑥ S3 8% MAXIMUM, IF THE SLOPE IS EXCEEDED OR CONTINUED FOR MORE THAN 5', ANALYZE VEHICLE TEMPLATES FOR VERTICAL CLEARANCE. IF EXISTING DRIVEWAY IS NEGATIVELY DRAINING, S3 CAN BECOME SLIGHTLY MORE NEGATIVE TO ACHIEVE PERPENDICULAR DRIVEWAY DESIGN IF THE VERTICAL CLEARANCE IS ACHIEVED IN VEHICLE TEMPLATES.

⑦ 1:3 MIN. 1:5 PREFERRED FOR DRIVEWAY RETROFIT PROJECTS. 1:10 PREFERRED FOR SIDEWALK REPLACEMENT PROJECTS.

⑧ 5.0' MIN. PAR WIDTH IS THE STANDARD THROUGH DRIVEWAYS. IF FEASIBLE WIDEN DRIVEWAY PAR WIDTH TO MATCH APPROACHING SIDEWALK PAR WIDTHS. IN VERTICALLY CONSTRAINED AREAS PAR WIDTHS CAN INCREMENTALLY BE REDUCED TO 4.5' OR 4' MIN AFTER ALL OTHER OPTIONS HAVE BEEN APPLIED.

⑨ THE PEDESTRIAN ACCESS ROUTE, MAY NOT EXCEED 0.02 FT./FT. AS CONSTRUCTED.

⑩ SIDEWALK OFFSET TO BE LESS THAN OR EQUAL TO HALF THE APPROACHING SIDEWALK WIDTH.

⑪ INTEGRAL DRIVEWAY APRON TO BE POURED MONOLITHICALLY/INTEGRAL WITH THE CURB AND GUTTER. SEE SHEET 2 FOR MORE INFORMATION.

⑫ SEE SHEET 2 FOR CURB TYPE INFORMATION.

⑬ 0" CURB IS AT FLOW LINE. SEE DRIVEWAY TABLE FOR BACK OF CURB HEIGHTS.

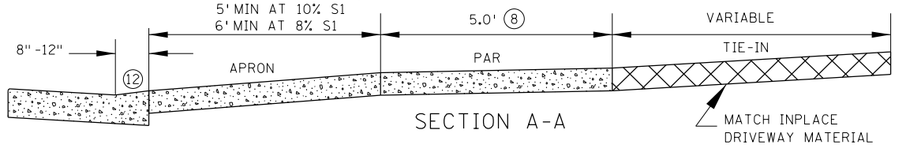
⑭ 3' LONG AT 8-10% PREFERRED FOR INITIAL CURB TAPER. REDUCE CURB TAPER SLOPE IF NECESSARY TO MATCH ADJACENT SIDEWALK GRADES.

⑮ MATCH FULL CURB HEIGHT.

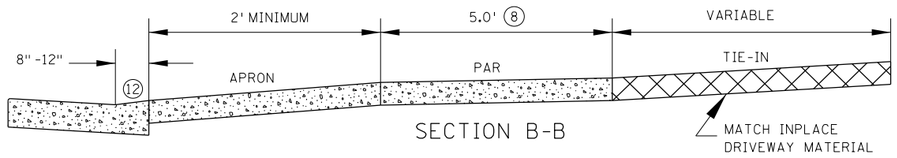
⑯ 1:2 TAPER RATE ON INTEGRAL DRIVEWAY APRONS.

⑰ SEE SHEET 4 FOR WHEN 6" WALK IS REQUIRED.

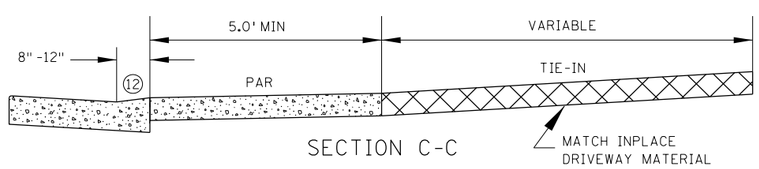
WITH 4" CURB HEIGHT:
3' MIN AT 10% S1
4' MIN AT 8% S1
WITH 6" CURB HEIGHT:
5' MIN AT 10% S1
6' MIN AT 8% S1



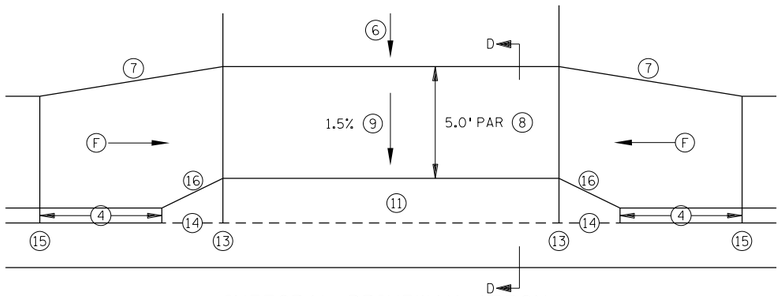
SECTION A-A



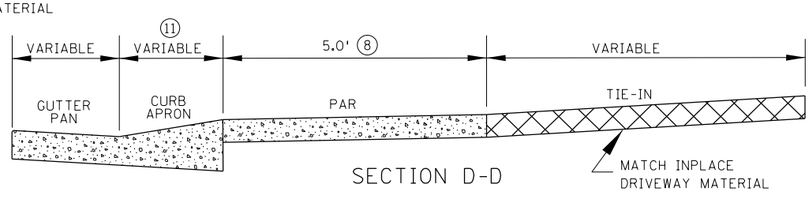
SECTION B-B



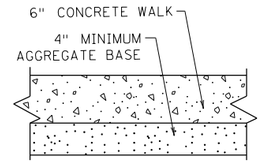
SECTION C-C



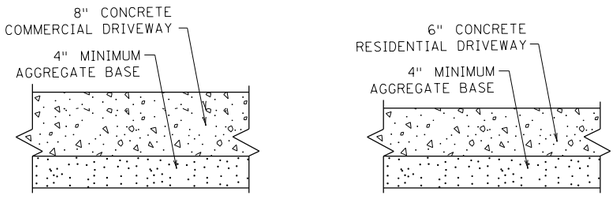
INTEGRAL DRIVEWAY APRON



SECTION D-D



TYPICAL SIDEWALK SECTION ⑰



TYPICAL DRIVEWAY SECTIONS

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.254 | **1 OF 4**

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

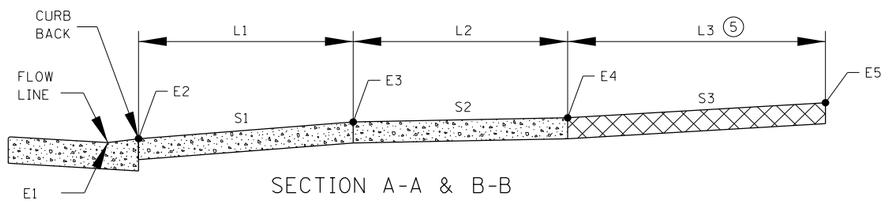
DRIVEWAY AND SIDEWALK DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 39 OF 359 SHEETS

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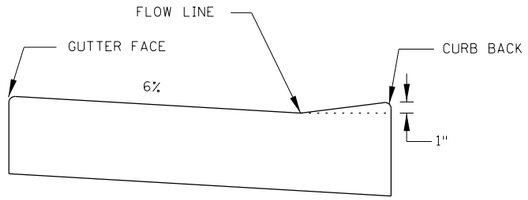
DRIVEWAY TABLE (1)

STATION	SIDE	DRIVEWAY TYPE (2)	CURB TYPE (3)	E1	E2	L1 FT	S1 %	E3	L2 FT	S2 (4) %	E4	L3 (5) FT	S3 %	EXISTING (6) %	E5	COMMENTS



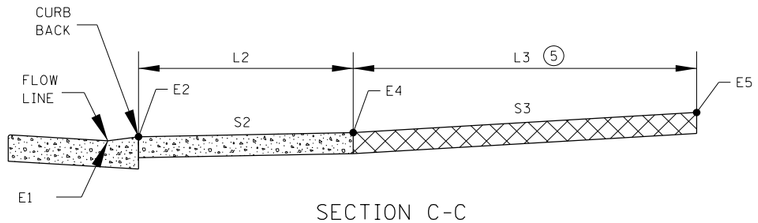
SECTION A-A & B-B

(REFER TO PREVIOUS SHEET)



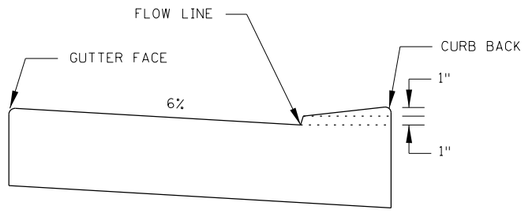
DW CURB TYPE 1

STANDARD CURB AT DRIVEWAY



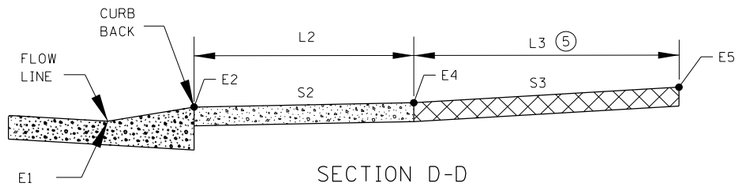
SECTION C-C

(REFER TO PREVIOUS SHEET)



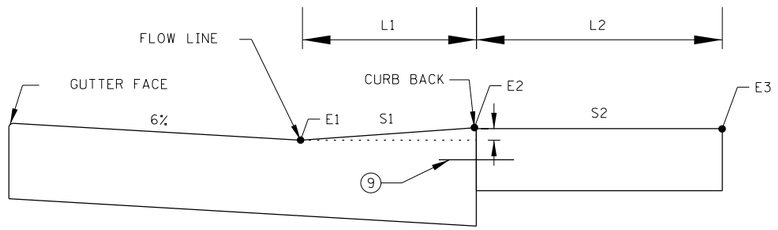
DW CURB TYPE 2

VERTICALLY CONSTRAINED



SECTION D-D

(REFER TO PREVIOUS SHEET)



INTEGRAL DRIVEWAY APRON (IDA)

TYPICAL INTEGRAL DRIVEWAY APRON (7)

CURB TYPE	L1 FT	E2	S1 (8) %
IDA 216	1.33	+0.16	12.5
IDA 220	1.67	+0.16	10
IDA 324	2	+0.24	12.5
IDA 432	2.67	+0.33	12.5

NOTES:

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.

DW CURB TYPE 1 SHALL BE USED WHEN THE DRIVEWAY ACTS AS A PEDESTRIAN RAMP. THE MAX. APRON SLOPE MUST ADHERE TO ADA CRITERIA AS WELL. DW CURB TYPE 1 SHOULD BE USED IF THERE IS ON STREET PARKING.

WHERE ROADWAY DRAINAGE IS A CONCERN (NEGATIVE SLOPED APRON) DW CURB TYPE 2 CAN BE USED TO HELP KEEP THE WATER ON PUBLIC RIGHT OF WAY.

S1 8% STANDARD, 10% MAX. COMMERCIAL AND 12% MAX. RESIDENTIAL. IF EXISTING GRADES ARE STEEPER DO NOT MAKE GRADES APPRECIABLY WORSE BY USING BEST PRACTICES SUCH AS DRIVEWAY CURB HEIGHTS, EXTENDING L3 AND/OR STEEPEN S3.

S3 8% MAXIMUM, IF THIS SLOPE IS EXCEEDED OR CONTINUED FOR MORE THAN 5', ANALYZE VEHICLE TEMPLATES FOR VERTICAL CLEARANCE. SEE FACILITY DESIGN GUIDE, CHAPTER 6, FOR GEOMETRIC DESIGNS OF DRIVEWAYS.

(1) EXAMPLE SHOWN TO BE INCLUDED IN PLAN FOR EACH DRIVEWAY THAT HAS PAR THROUGH IT.

(2) REFERS TO THE FOLLOWING TYPES; PERPENDICULAR DRIVEWAY, TIERED PERPENDICULAR OFFSET DRIVEWAY, TIERED PERPENDICULAR DRIVEWAY, PARALLEL DRIVEWAY, AND INTEGRAL DRIVEWAY APRON.

(3) DW CURB TYPE 1 IS THE STANDARD AND SHALL BE THE STARTING POINT FOR ALL PERPENDICULAR AND TIERED DRIVEWAYS. DW CURB TYPE 2 SHALL ONLY BE USED AFTER UTILIZING BEST PRACTICES SUCH AS MAXIMIZING S1, S3, AND L3.

(4) SHOULD BE DESIGNED AT 1.5%.

(5) ACQUIRE ADEQUATE L3 TO ALLOW FOR CONTINUOUS PAR PROFILE (UNIFORM SIDEWALK SECTION) THROUGH THE DRIVEWAY APRON.

(6) PROVIDE INPLACE TIE-IN SLOPE INFORMATION AT BACK OF PROPOSED WALK (S3 AREA).

(7) INFORMATION TO BE INCORPORATED INTO DRIVEWAY TABLE WHEN INTEGRAL DRIVEWAY APRON IS USED. OTHER CURB HEIGHTS & CURB APRON LENGTHS CAN BE USED.

(8) L1 & S1 FOR INTEGRAL DRIVEWAY APRON IS TO FLOWLINE. 12.5% IS MAXIMUM PREFERRED SLOPE.

(9) TIE ADJACENT SECTIONS. CONCRETE DRIVEWAY APRON AND CONCRETE DRIVEWAY SIDEWALK SHALL BE CONSTRUCTED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. DRILL AND GROUT OR CAST IN-PLACE THROUGH HOLES IN THE FORMS NO. 4 X 12" LONG TIE BARS (EPOXY COATED), 36" MAXIMUM SPACING WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINT.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.254 | 2 OF 4

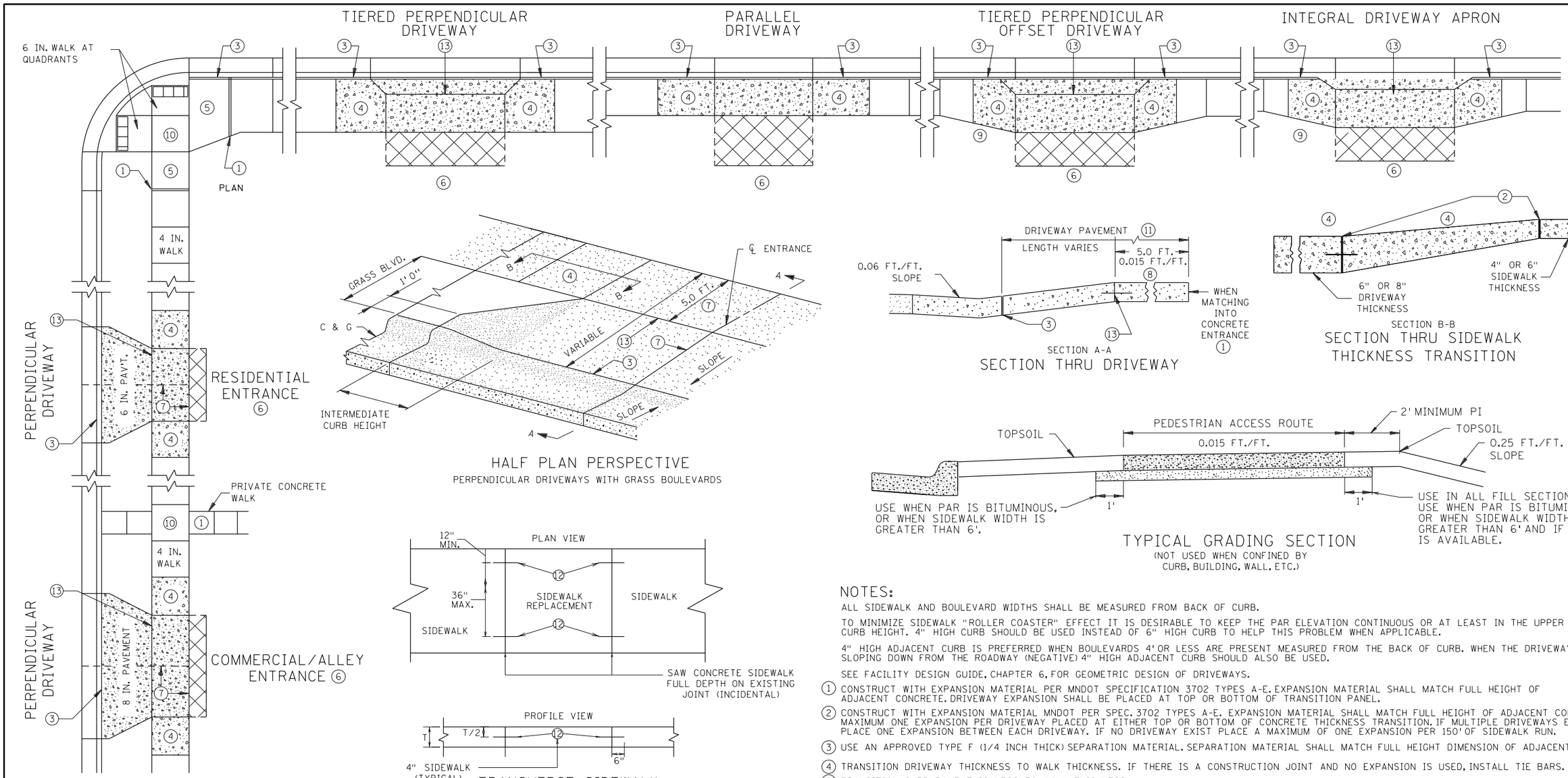
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REVISED:

THOMAS STYBRICKI
STATE DESIGN ENGINEER

DRIVEWAY AND SIDEWALK DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 40 OF 359 SHEETS

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SIDEWALK LONGITUDINAL JOINT TIE BAR TABLE				
SIDEWALK WIDTH, W	SIDEWALK THICKNESS, T	TIE BAR SIZE	LENGTH	SPACING
> 7'	4"	No. 4	12"	24"
>10'	6"	No. 4	12"	36"

FOR 4" CONCRETE ONLY: CAST IN PLACE BARS MUST BE SUPPORTED WITH P-STAKES OR REINFORCEMENT BASKETS FOR FULL WIDTH CONCRETE PLACEMENTS.

FOR 6" CONCRETE ONLY: DRILL AND GROUT OR CAST IN PLACE THROUGH HOLES IN THE FORMS REQUIRED FOR STAGED ADJACENT CONCRETE PLACEMENTS.

NOTES:

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.

TO MINIMIZE SIDEWALK "ROLLER COASTER" EFFECT IT IS DESIRABLE TO KEEP THE PAR ELEVATION CONTINUOUS OR AT LEAST IN THE UPPER HALF OF CURB HEIGHT. 4" HIGH CURB SHOULD BE USED INSTEAD OF 6" HIGH CURB TO HELP THIS PROBLEM WHEN APPLICABLE.

4" HIGH ADJACENT CURB IS PREFERRED WHEN BOULEVARDS 4' OR LESS ARE PRESENT MEASURED FROM THE BACK OF CURB. WHEN THE DRIVEWAY IS SLOPING DOWN FROM THE ROADWAY (NEGATIVE) 4" HIGH ADJACENT CURB SHOULD ALSO BE USED.

SEE FACILITY DESIGN GUIDE, CHAPTER 6, FOR GEOMETRIC DESIGN OF DRIVEWAYS.

1. CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE. DRIVEWAY EXPANSION SHALL BE PLACED AT TOP OR BOTTOM OF TRANSITION PANEL.
2. CONSTRUCT WITH EXPANSION MATERIAL MNDOT PER SPEC. 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE. MAXIMUM ONE EXPANSION PER DRIVEWAY PLACED AT EITHER TOP OR BOTTOM OF CONCRETE THICKNESS TRANSITION. IF MULTIPLE DRIVEWAYS EXIST PLACE ONE EXPANSION BETWEEN EACH DRIVEWAY. IF NO DRIVEWAY EXIST PLACE A MAXIMUM OF ONE EXPANSION PER 150' OF SIDEWALK RUN.
3. USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.
4. TRANSITION DRIVEWAY THICKNESS TO WALK THICKNESS. IF THERE IS A CONSTRUCTION JOINT AND NO EXPANSION IS USED, INSTALL TIE BARS.
5. TRANSITION CURB RAMP THICKNESS TO WALK THICKNESS.
6. MATCH INPLACE DRIVEWAY WIDTH, MATERIAL TYPE AND THICKNESS.
7. FORM CONTRACTION JOINT AS NEEDED TO PRODUCE APPROXIMATELY SQUARE PANELS. CONCRETE PANEL SIZE SHOULD NOT EXCEED 1 1/2 : 1 LENGTH X WIDTH. 81 SF FOR 6" CONCRETE DRIVEWAY WITH 9'X9' MAXIMUM PANEL SIZE. 144 SF FOR 8" CONCRETE DRIVEWAY WITH 12'X12' MAXIMUM PANEL SIZE. MATCH DRIVEWAY APRON AND SIDEWALK JOINTS.
8. THE PEDESTRIAN ACCESS ROUTE CROSS-SLOPE, SHALL NOT EXCEED 0.02 FT./FT. AS CONSTRUCTED.
9. 1:10 MIN. SIDEWALK OFFSET TAPER REQUIRED FOR SIDEWALK REPLACEMENT PROJECTS. 1:3 MIN. AND 1:5 MIN. PREFERRED SIDEWALK OFFSET TAPER FOR DRIVEWAY REPLACEMENT.
10. LANDING REQUIRED, SEE NEXT SHEET FOR MORE INFORMATION.
11. CONCRETE DRIVEWAY APRON AND CONCRETE DRIVEWAY SIDEWALK SECTIONS SHALL BE CONSTRUCTED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. ENGINEER'S APPROVAL REQUIRED FOR MONOLITHIC PLACEMENTS.
12. DRILL AND GROUT NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1' MINIMUM FROM ADJACENT CONCRETE JOINTS. BARS TO BE ADJUSTED TO MATCH SIDEWALK GRADES. TO BE PAID BY EACH.
13. DRILL AND GROUT OR CAST IN-PLACE THROUGH HOLES IN THE FORMS NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1' MINIMUM FROM ADJACENT CONCRETE JOINTS.

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JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

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STATE DESIGN ENGINEER

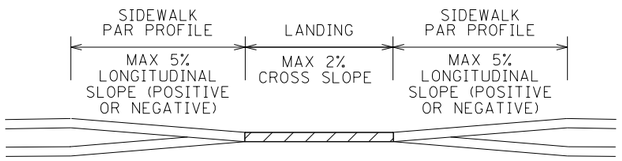
STANDARD PLAN 5-297.254 | **3 OF 4**

APPROVED: 11-04-2021
REVISED: 12-23-2021

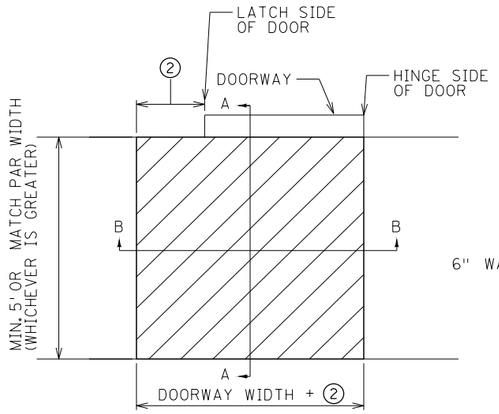
DRIVEWAY AND SIDEWALK DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 41 OF 359 SHEETS

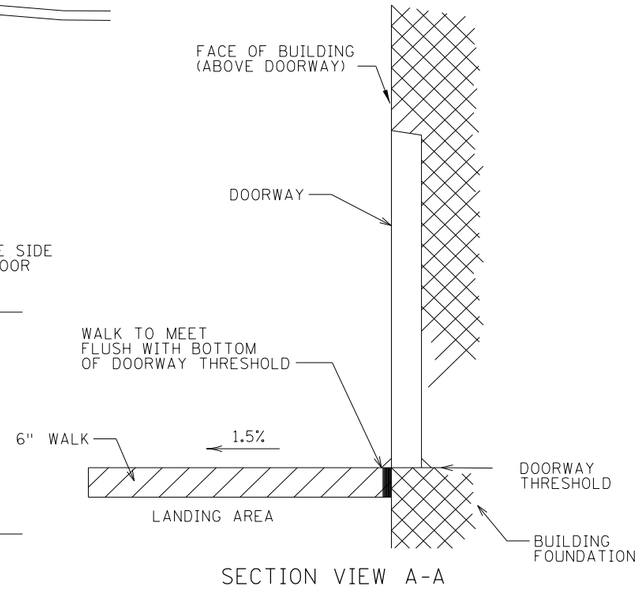
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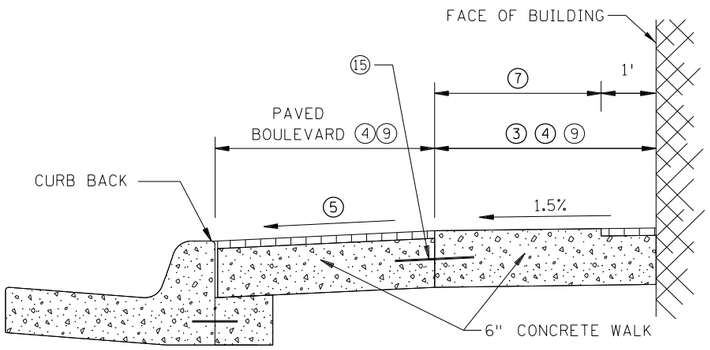
SECTION VIEW B-B



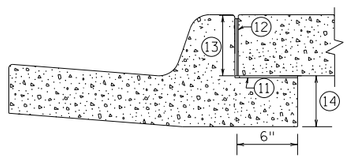
PLAN VIEW DOORWAY



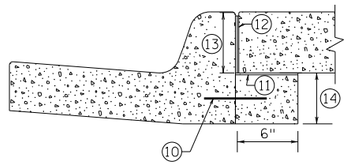
SECTION VIEW A-A



DOWNTOWN SIDEWALK TYPICAL SECTION



SLIP FORM SILL

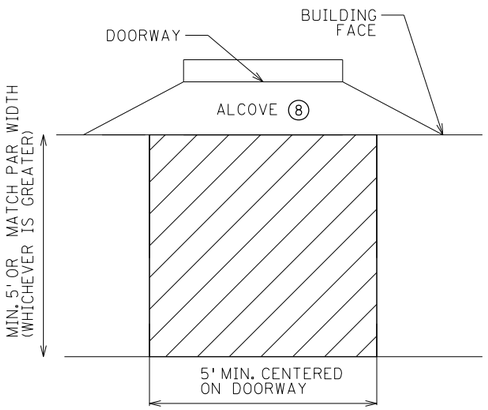


FIXED FORM SILL

SILL CURB SHOULD BE USED AT ALL LOCATIONS WHEN CONCRETE WALK IS AT BACK OF CURB, INCLUDING PAVED BOULEVARD.

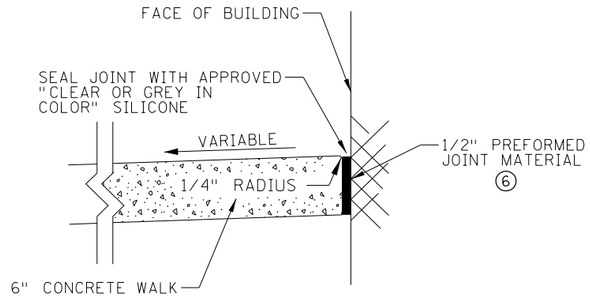
SILL CURB SHALL NOT BE USED IN CURB RAMP AND DRIVEWAY AREAS, INCLUDING CONCRETE FLARES.

SILL CURB WITH 4" WALK CAN USE FIXED OR SLIP FORM OPTIONS.



PLAN VIEW DOORWAY WITH ALCOVE

SIDEWALK LANDING REQUIREMENTS ①



BUILDING JOINT SEAL (INCIDENTAL)

NOTES:

6" WALK IS REQUIRED:
1) IN ALL SIDEWALK LOCATIONS WHERE VARIABLE SLOPED CONCRETE BOULEVARDS ARE PAVED, SUCH AS COMMERCIAL (STORE FRONT, DOWNTOWN) AREAS.
2) ANYTIME DRILL AND REINFORCEMENT IS USED TO TIE LONGITUDINAL JOINTS TOGETHER.
3) TO ELIMINATE LONGITUDINAL JOINT WHEN INCREASING PANEL SIZE OVER 36SF.
4) AT LOCATIONS WHERE MAINTENANCE EQUIPMENT WILL SUBJECT CONCRETE TO HEAVY LOADS.

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.

FIELD ADJUST SIDEWALK PROFILES TO MEET ALL DOORWAY THRESHOLDS.

SIDEWALK MUST MAINTAIN POSITIVE DRAINAGE AWAY FROM THE BUILDING TO THE ROADWAY.

SEE SPECIAL PROVISIONS FOR SILICONE SPECIFICATIONS.

① LANDING CRITERIA IS REQUIRED FOR ALL DOORS, STEPS, AND PRIVATE WALKS. FEASIBILITY DECREASES WITH NARROWER BOULEVARDS AND STEEPER SIDEWALK PROFILES.
② 18" MIN. WHEN DOOR SWINGS OUTWARD FROM BUILDING. 12" MIN WHEN DOOR SWINGS INWARD FROM BUILDING.
③ 6' MIN. PAR REQUIRED WHEN ADJACENT TO BUILDINGS.
④ 2/3 PAR TO 1/3 BOULEVARD SHOULD BE USED WHEN FEASIBLE. HOLD UNIFORM BOULEVARD WIDTH. 4' PREFERRED MINIMUM BOULEVARD.
⑤ 1%-5% FOR THE MAJORITY OF THE BLOCK, WITH EXCEPTIONS UP TO 8% IN CONSTRAINED AREAS.
⑥ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
⑦ TO MINIMIZE VIBRATION AND ROLLING RESISTANCE, AREA SHALL BE FREE OF PAVERS, STAMPED CONCRETE, AND/OR EXCESSIVE JOINTING.
⑧ 2% MAX. PER BUILDING CODE. IF GREATER THAN 2%, FLATTEN AS FEASIBLE.
⑨ FORM CONTRACTION JOINTS AS NEEDED TO PRODUCE APPROXIMATELY SQUARE PANEL SIZE. CONRETE PANEL SIZE SHOULD NOT EXCEED 1½ :1 LENGTH X WIDTH.
⑩ DRILL AND GROUT NO. 4 X 8" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1' MINIMUM FROM ADJACENT CONCRETE JOINTS. TIE BARS SHALL BE EMBEDDED 4" WITH 2" MINIMUM CONCRETE COVER AND ARE INCIDENTAL TO SILL PLACEMENT.
⑪ FURNISH AND INSTALL THE FULL WIDTH OF THE TOP OF SILL A MINIMUM 2ML THICK POLYTHENE SHEETING.
⑫ USE AN APPROVED TYPE F (¼ INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.
⑬ DIMENSION TO BE SAME AS SIDEWALK THICKNESS, 4" MIN.
⑭ 6" WALK: 5" MIN. FOR B424; 7" MIN. FOR B624
4" WALK: 7" MIN. FOR B424; 9" MIN. FOR B624
⑮ DRILL AND GROUT NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONCRETE JOINTS.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.254 | 4 OF 4

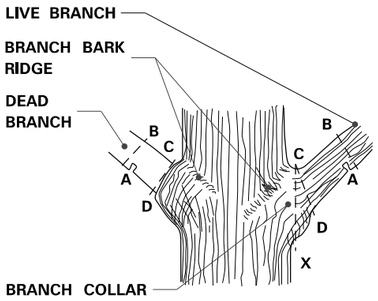
APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

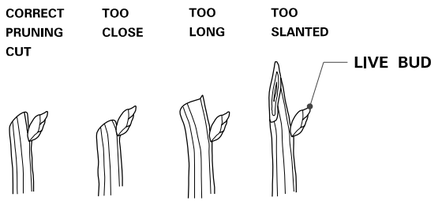
DRIVEWAY AND SIDEWALK DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 42 OF 359 SHEETS

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BRANCHES PRUNED AT TRUNK
(SHIGO METHOD)



BRANCHES PRUNED TO LIVE BUD

STEPS TO PRUNING WITH PRUNING SAW:

1. CUT PART WAY THROUGH THE BRANCH AT POINT A.
2. CUT COMPLETELY THROUGH BRANCH FROM POINT B TO A.
3. AT BRANCH COLLAR CUT FROM POINT C TO D.

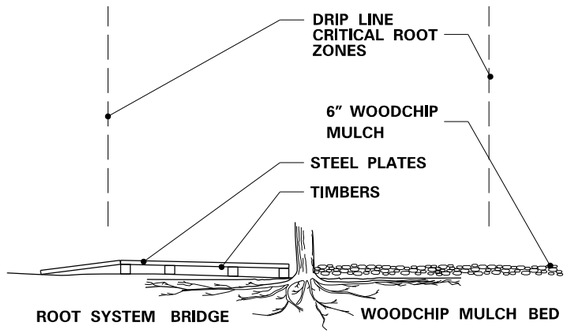
INCORRECT CUT FROM POINT C TO X (TOO CLOSE) WILL RESULT IN DISCONTINUOUS CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

CORRECT CUT FROM POINT C TO D (LEAVING BRANCH COLLAR BUT NOT THE STUB FROM POINT B TO A) WILL RESULT IN CONTINUOUS DOUGHNUT SHAPED CALLUS FORMATION AFTER ONE SEASON OF GROWTH.

PRUNING NOTES:

1. PRUNE USING CLEAN AND SHARP SCISSOR-TYPE PRUNER OR PRUNING SAW.
2. THE BEST TIME TO PRUNE IS LATE DORMANT SEASON OR EARLY SPRING.
3. AVOID PRUNING OAKS IN APRIL, MAY, JUNE OR JULY.
4. IF PRUNING IS NECESSARY OR IF WOUNDS OCCUR TO OAK TREES IN APRIL, MAY, JUNE OR JULY, IMMEDIATELY PAINT CUT SURFACE OR WOUND WITH LATEX PAINT OR SHELLAC.

PRUNING
(MnDOT 2571.3E.1 and 2571.3K.2.a(9))



IF CONSTRUCTION VEHICLES MUST PASS OVER ROOT ZONES, THE CONTRACTOR MUST EITHER:

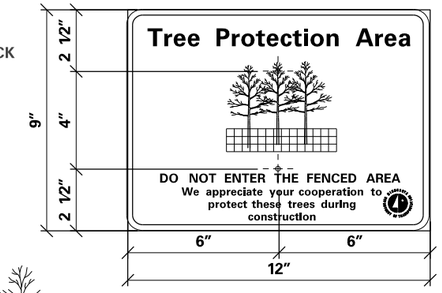
1. CONSTRUCT ROOT SYSTEM BRIDGES WITH STEEL PLATE SUPPORTED ON WOOD TIMBERS PLACED RADIALLY TO THE TREE TRUNK.

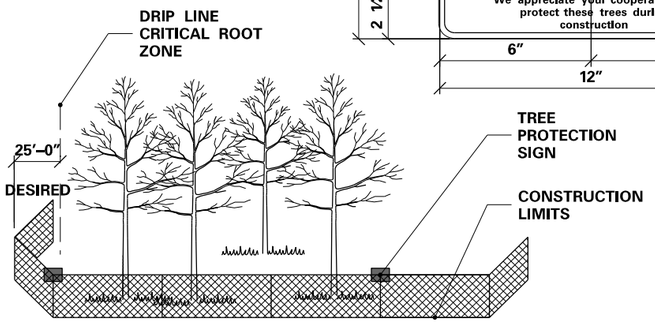
OR

2. PLACE A 6 INCH LAYER OF WOODCHIP MULCH OVER A TYPE III GEOTEXTILE (MnDOT 3733).

OTHER VEGETATION PROTECTION MEASURES
(MnDOT 2572.3A.12)

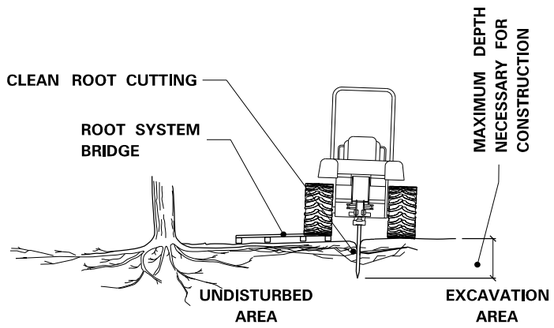
1. FABRICATE 12" X 9" X 3/8" SIGN WITH 0.75" RADIUS CORNERS.
2. SIGN SHALL BE WHITE WITH BLACK LETTERING.
3. ATTACH SIGN TO POST USING 1" LENGTH WOOD SCREWS.





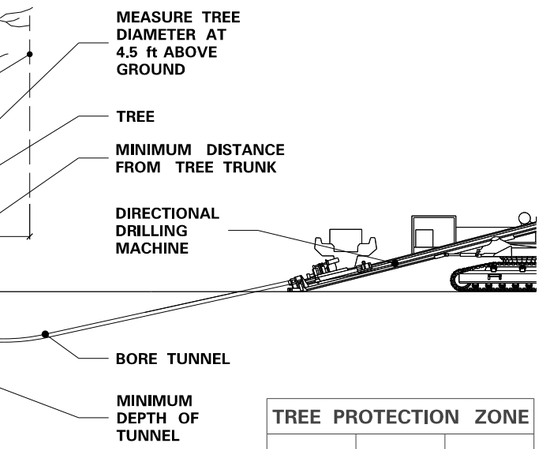
1. FURNISH AND INSTALL TEMPORARY FENCE AT THE TREE'S DRIPLINE OR CONSTRUCTION LIMITS AS SPECIFIED, PRIOR TO ANY CONSTRUCTION.
2. WHEN POSSIBLE PLACE FENCE 25 FEET BEYOND THE DRIP LINE.
3. PLACE TREE PROTECTION SIGNS ALONG FENCE AT 50' INTERVALS.

TEMPORARY FENCE
(MnDOT 2572.3A.1)



1. WHEN DESIGNATED IN THE PLAN OR DIRECTED BY THE ENGINEER, PRIOR TO EXCAVATION, ALL TREE ROOTS WILL BE CLEANLY CUT BY A VIBRATORY PLOW OR OTHER APPROVED ROOT CUTTER.
2. THE TREE ROOTS WILL BE CUT CLEANLY TO THE MINIMUM DEPTH NECESSARY FOR CONSTRUCTION.
3. IMMEDIATELY, AND CLEANLY CUT DAMAGED AND EXPOSED ROOTS.
4. ROOT ENDS EXPOSED BY EXCAVATION ACTIVITIES SHALL BE IMMEDIATELY COVERED WITH A 6" LAYER OF ADJACENT SOIL.
5. EXPOSED CUT OAK ROOTS SHALL BE IMMEDIATELY (WITHIN 5 MINUTES) TREATED WITH A WOUND DRESSING MATERIAL CONSISTING OF LATEX PAINT OR SHELLAC.

CLEAN ROOT CUTTING
(MnDOT 2572.3A.2)

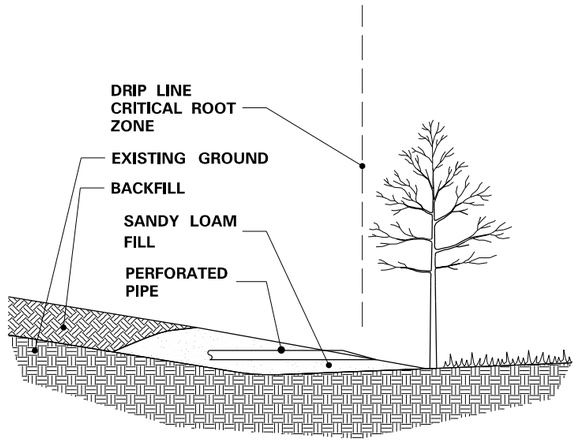


NOTE:

1. (A) IS THE DIAMETER OF TREES MEASURED 4'-6" FEET ABOVE THE GROUND AND IS TERMED THE "DIAMETER AT BREAST HEIGHT," (DBH).
2. USING A TREE DIAMETER TAPE, WRAP THE TAPE AROUND THE GIRTH OF THE TREE, AT THE DBH, BEING CAREFUL NOT TO TWIST THE TAPE.

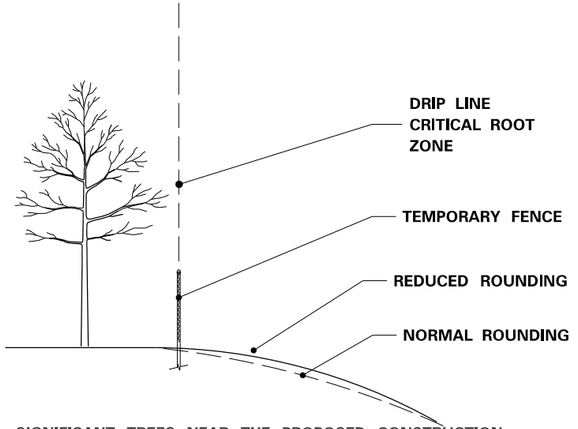
TREE PROTECTION ZONE		
A	B	C
< 2"	2'	2'
2–4"	4'	2.5'
> 4–9"	6'	2.5'
> 9–14"	10'	3'
> 14–19"	12'	3.25'
> 19"	15'	4'

UTILITY CONSTRUCTION
(MnDOT 2572.3A.5)



1. ANY FILL REQUIRED WITHIN THE DRIP LINE OF TREES, IS UNCOMPACTED ROOTING TOPSOIL BORROW.
2. EXCESSIVE FILL MAY REQUIRE PLACING PERFORATED PIPE WITH AT LEAST ONE DAYLIGHTED END OPENING AS AN AERATION SYSTEM.

ROOTING TOPSOIL BORROW
(MnDOT 2572.3A.4)



SIGNIFICANT TREES NEAR THE PROPOSED CONSTRUCTION LIMITS WILL BE IDENTIFIED IN THE PLAN OR BY THE ENGINEER AND WILL BE PRESERVED BY THE CONTRACTOR.

1. PLACE THE TEMPORARY FENCE.
2. REDUCE SLOPE ROUNDING WHERE ROOT ZONES ARE DISTURBED BY NORMAL SLOPE ROUNDING.
3. VARY BACKSLOPE STEEPNESS TO AVOID TREE LOSS OR UNNECESSARY ROOT DAMAGE.

SLOPE ROUNDING

REVISION:

APPROVED: DECEMBER 11, 2015

STATE DESIGN ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

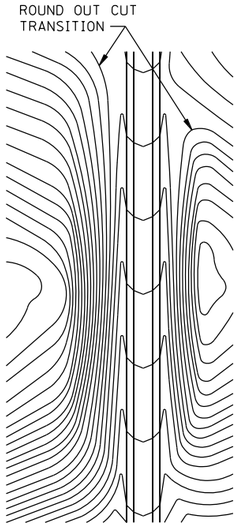
STANDARD PLAN 5-297.302 | 1 OF 1

APPROVED: 12-11-2015
REVISED:

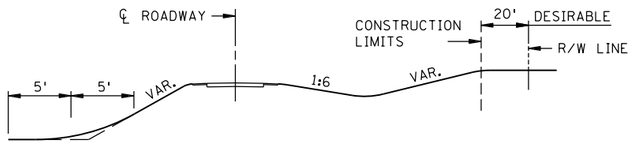
PROTECTION AND RESTORATION OF VEGETATION

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 43 OF 359 SHEETS

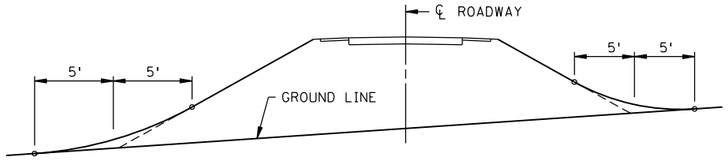
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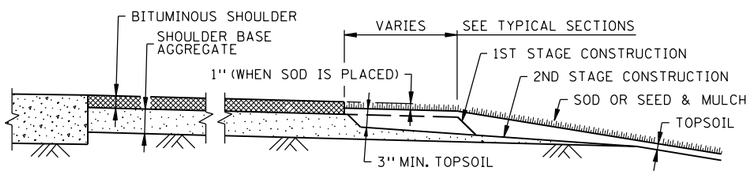
CONTOURING ROAD CUTS



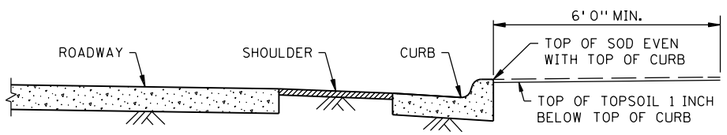
ROUNDING SHOULDERS AND BACKSLOPES



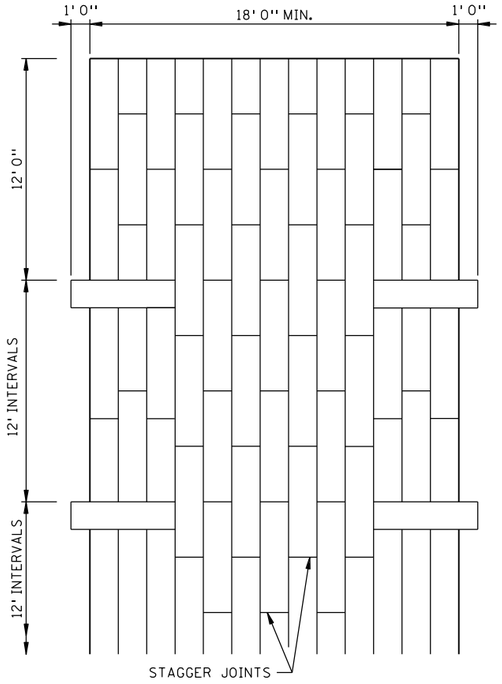
SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES



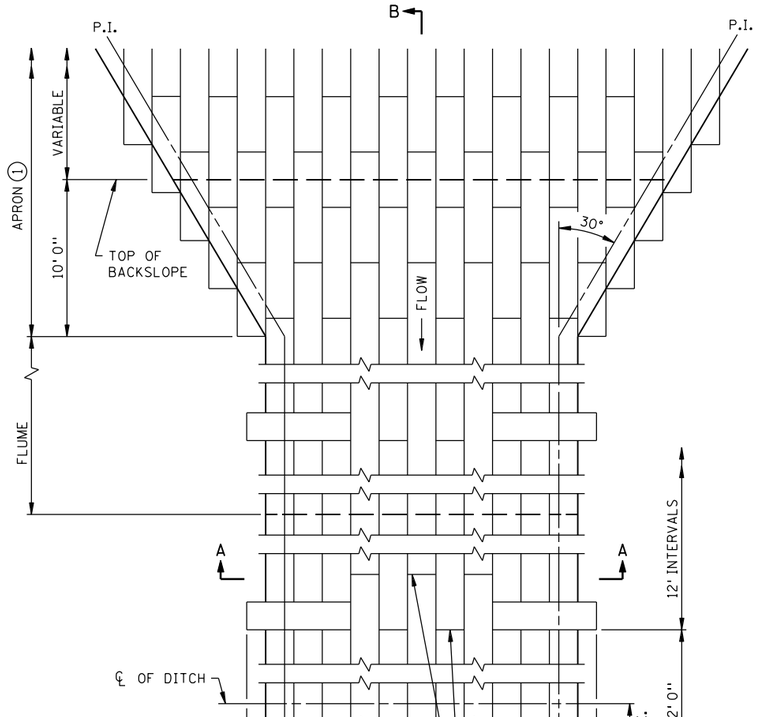
SHAPING AND TOPSOILING INSLOPES



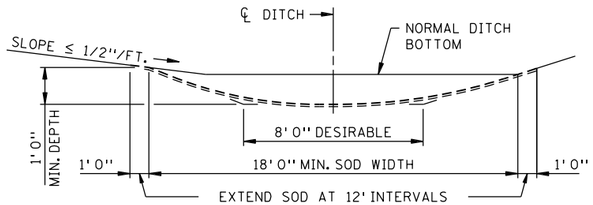
SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED



PLAN VIEW

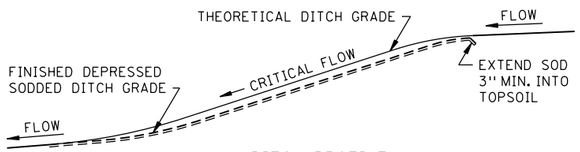


PLAN VIEW



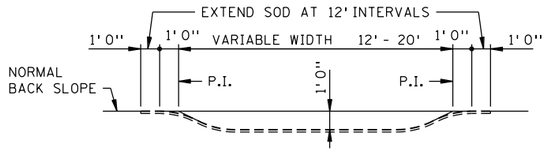
SODDED DITCH CROSS SECTION

WHERE FRONT OR BACK SLOPE IS FLAT (LESS THAN 1/2"/FT.), FIRST NOTCH DITCH AND THEN PROVIDE ROUNDING.

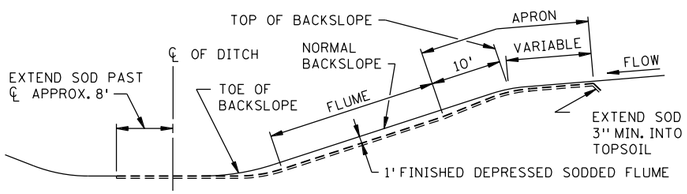


DITCH PROFILE

SODDED DITCH DETAILS



SECTION A-A



SECTION B-B

SODDED FLUME DETAILS

NOTES:

SEE SPEC. 2575.3 FOR ADDITIONAL INFORMATION.

(1) CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.

REVISION:
APPROVED: 2-28-2017

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

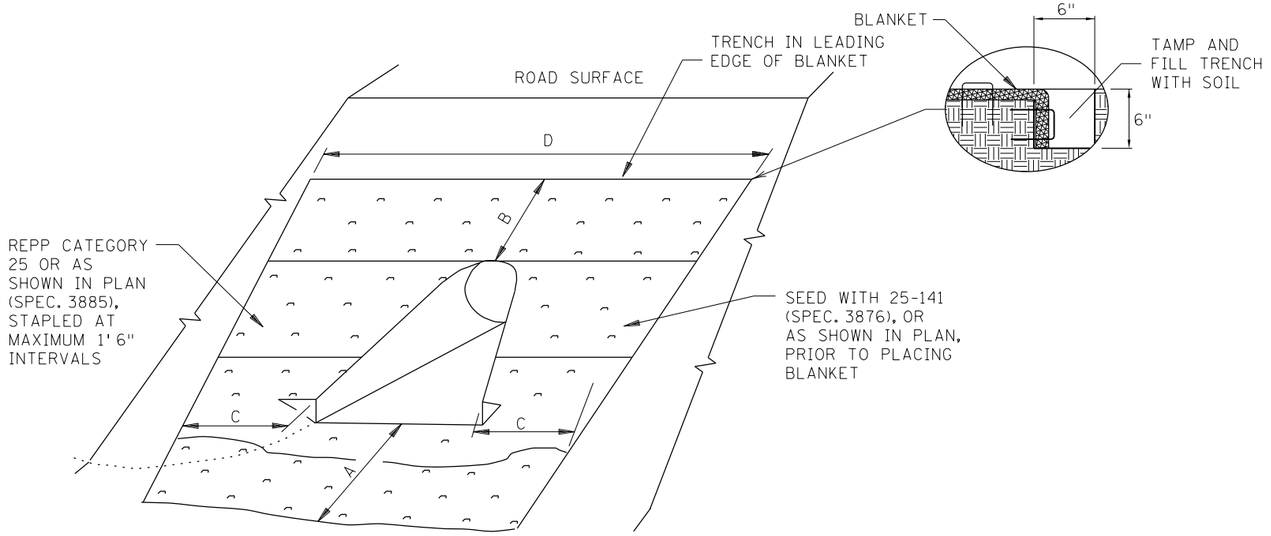
STANDARD PLAN 5-297.404	1 OF 3
APPROVED: 2-28-2017	
REVISED:	

PERMANENT EROSION CONTROL

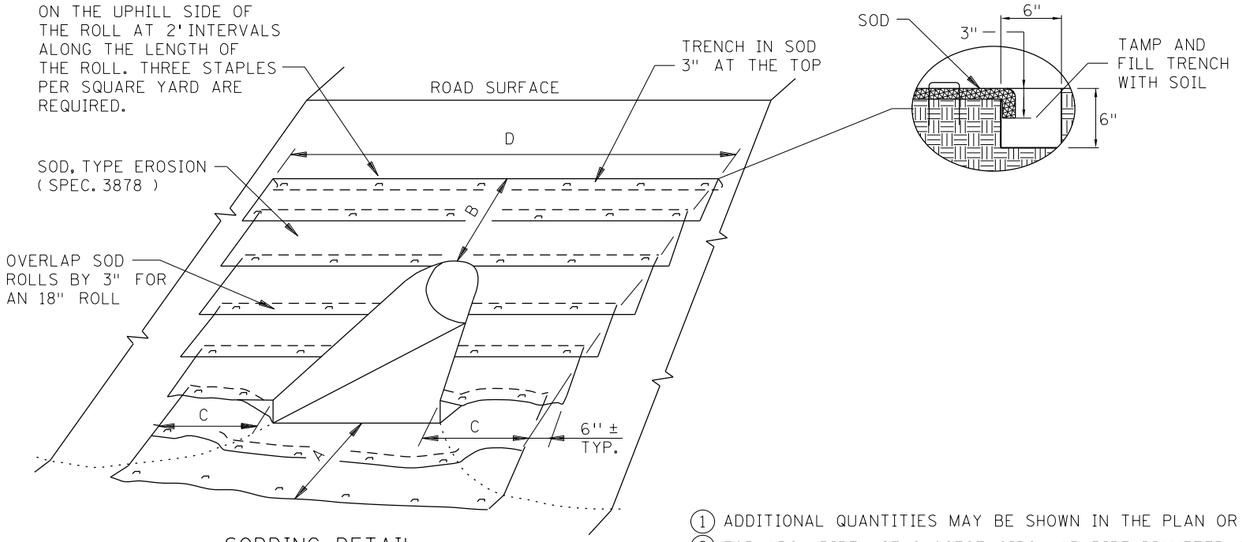
ALONG ROADWAYS, DITCHES AND FLUMES

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 44 OF 359 SHEETS

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ROLLED EROSION PREVENTION PRODUCT (BLANKET) & SEED DETAIL



SODDING DETAIL

CULVERT INLET APRON ①										
CULVERT DIAMETER ②	SOD OR REPP (SQ. YDS.)						"A"	"B"	"C"	"D"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:4 SLOPE (PLATE 3128)				
15"	9	9	8	8	N/A	N/A	3'	1.5'	3'	13'
18"	13	12	12	14	16	N/A	3'	3'	3'	16'
21"	14	14	14	16	18	14	3'	3'	3'	17'
24"	16	15	16	19	21	17	3'	3'	3'	18'
27"	N/A	20	N/A	N/A	N/A	N/A	3'	4.5'	3'	20'
30"	23	22	25	30	32	N/A	3'	4.5'	3'	22'
36"	34	34	39	48	51	37	4.5'	4.5'	4.5'	27'
42"	43	40	51	64	N/A	N/A	4.5'	6'	4.5'	30'
48"	54	50	66	82	N/A	N/A	4.5'	7.5'	4.5'	34'
54"	65	58	81	102	N/A	N/A	4.5'	9'	4.5'	37'
60"	69	59	91	115	N/A	N/A	4.5'	9'	4.5'	39'
66"	69	63	N/A	N/A	N/A	N/A	4.5'	9'	4.5'	39'
72"	78	72	99	122	N/A	N/A	4.5'	10.5'	4.5'	41'

CULVERT OUTLET APRON ①										
CULVERT DIAMETER ②	SOD OR REPP (SQ. YDS.)						"A"	"B"	"C"	"D"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:4 SLOPE (PLATE 3128)				
15"	10	10	9	10	N/A	N/A	4.5'	1.5'	3'	13'
18"	13	13	12	14	15	N/A	6'	1.5'	3'	14'
21"	16	14	16	18	19	15	6'	1.5'	3'	15'
24"	18	18	18	21	22	18	7.5'	1.5'	3'	16'
27"	N/A	19	N/A	N/A	N/A	N/A	7.5'	1.5'	3'	17'
30"	23	23	24	28	29	N/A	9'	1.5'	3'	18'
36"	36	35	38	47	48	37	10.5'	1.5'	4.5'	23'
42"	43	40	47	58	N/A	N/A	12'	1.5'	4.5'	25'
48"	50	46	57	70	N/A	N/A	13.5'	1.5'	4.5'	27'
54"	57	50	67	84	N/A	N/A	15'	1.5'	4.5'	29'
60"	74	63	90	113	N/A	N/A	16.5'	1.5'	6'	33'
66"	75	67	N/A	N/A	N/A	N/A	16.5'	1.5'	6'	33'
72"	77	70	92	114	N/A	N/A	16.5'	1.5'	6'	34'

① ADDITIONAL QUANTITIES MAY BE SHOWN IN THE PLAN OR REQUIRED BY THE ENGINEER.
② FOR ARCH PIPE USE CLOSEST CIRCULAR PIPE DIAMETER AND APRON SLOPE. DIAMETERS LARGER THAN 72" REQUIRE SPECIAL DESIGNS.

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

AREA SHOWN IN SQUARE YARDS IS FOR ONE CULVERT END.

QUANTITIES ARE CALCULATED TO INCLUDE SOD REQUIRED TO PROVIDE A 3" OVERLAP ON ALL 18" WIDE ROLLS. THIS ALLOWS FOR SHRINKAGE OF THE SOD.

FOR PIPE ARCHES USE EQUIVALENT PIPE DIAMETER TO APPROXIMATE AREA.

FOR CORRUGATED POLYETHYLENE PIPE METAL APRON (PLATE 3129), USE THE METAL APRON COLUMN (PLATE 3123).

AREAS AND DIMENSIONS ARE APPROXIMATE AND ARE BASED ON APRON SIDE SLOPES OF NO STEEPER THAN 1:2, UNLESS INDICATED AS FOR SAFETY APRONS.

CARE SHOULD BE TAKEN IN SELECTING SOD TO STABILIZE THE APRON. RIP-RAP SHOULD BE USED FOR FLOW VELOCITIES GREATER THAN 6 FPS.

REVISION:

APPROVED: JANUARY 8, 2020
MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.404 | 2 OF 3

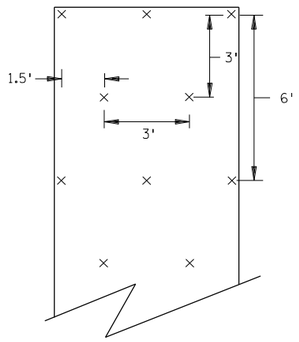
APPROVED: 1-8-2020
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PERMANENT EROSION CONTROL

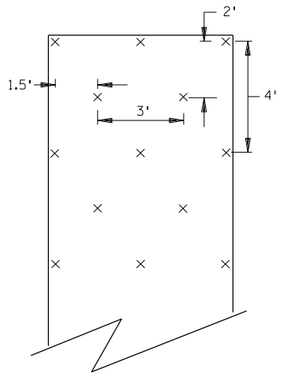
TURF ESTABLISHMENT DETAIL AT CULVERT ENDS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 45 OF 359 SHEETS

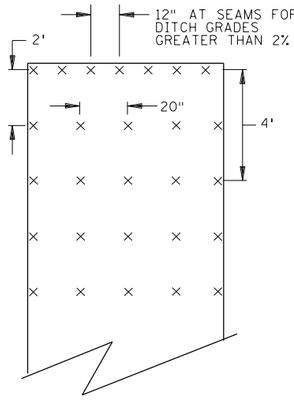
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7/18/2022 tomb



SLOPES FLATTER THAN 1:2
120 STAPLES PER 100 SQ YD

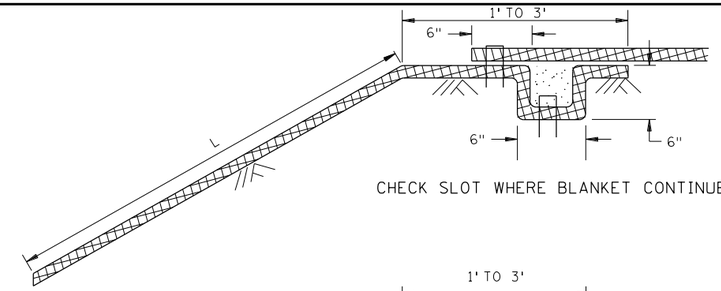


SLOPES 1:2 TO 1:1
170 STAPLES PER 100 SQ YD

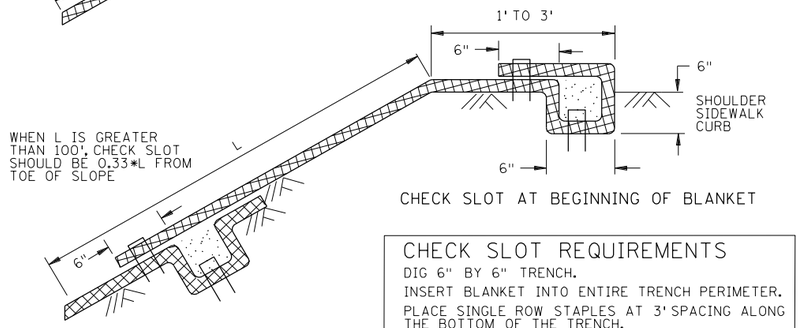


CHANNEL AND DITCH APPLICATIONS
350 STAPLES PER 100 SQ YD

BLANKET STAPLE PATTERN



CHECK SLOT WHERE BLANKET CONTINUES



CHECK SLOT AT BEGINNING OF BLANKET

CHECK SLOT REQUIREMENTS

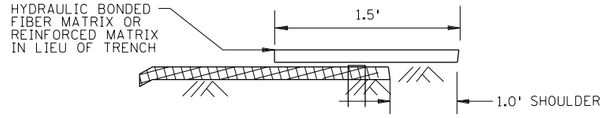
DIG 6" BY 6" TRENCH.

INSERT BLANKET INTO ENTIRE TRENCH PERIMETER.

PLACE SINGLE ROW STAPLES AT 3' SPACING ALONG THE BOTTOM OF THE TRENCH.

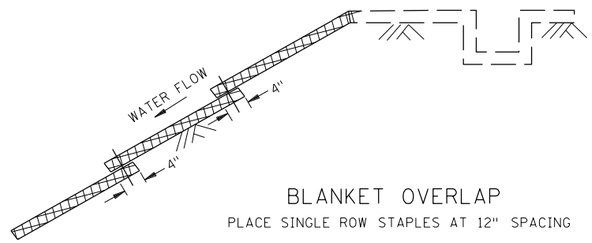
BACKFILL TRENCH WITH SOIL AND TAMP.

PLACE SINGLE ROW STAPLES AT 3' SPACING ON OVERLAP.



CHECK SLOT ALTERNATIVE
PLACE SINGLE ROW STAPLES AT 12" SPACING

CHECK SLOT DETAILS



BLANKET OVERLAP
PLACE SINGLE ROW STAPLES AT 12" SPACING

GENERAL BLANKET INSTALLATION REQUIREMENTS

REPP = ROLLED EROSION PREVENTION PRODUCT.

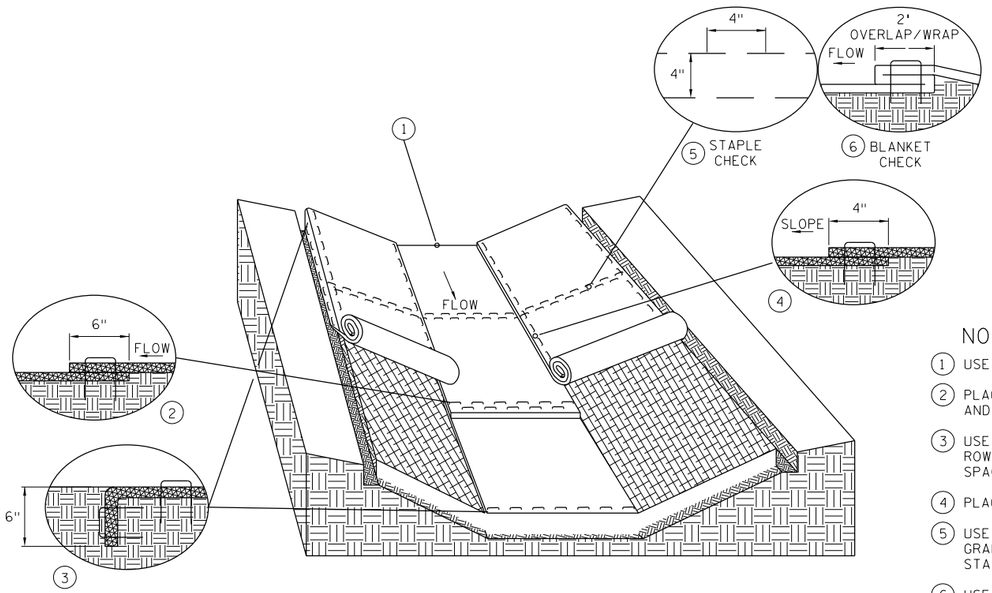
PREPARE SOIL AS PER SPECIFICATION 2574.

LAY PARALLEL OR PERPENDICULAR TO THE DIRECTION OF WATER FLOW.

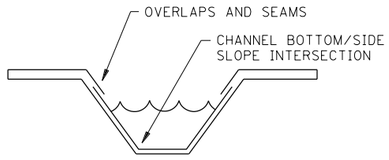
OVERLAP ADJACENT STRIP EDGES A MINIMUM OF 4".

OVERLAP BLANKET 6" (MINIMUM) AT EACH END. OVERLAP BOTTOM END OF UPPER BLANKET OVER TOP END OF LOWER BLANKET. STAPLE ALONG OVERLAP EVERY 1.5'.

THE UPPERMOST BLANKET OF ALL SLOPE APPLICATIONS MUST START IN A CHECK SLOT. IF SLOPE LENGTH (L) IS 100' OR GREATER, INSERT BLANKET INTO A CHECK SLOT ⅓ FROM THE BOTTOM OF THE SLOPE.



DITCH BLANKET STAPLE DETAIL



DITCH BLANKET CRITICAL POINTS (7)

NOTES:

1. USE CHECK SLOT DETAIL (NO ALTERNATES).
2. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER.
3. USE 6" X 6" TRENCH TO PLACE BLANKET. PLACE SINGLE ROW OF STAPLES ON TOP AND TRENCH SIDES AT 12" SPACING. BACKFILL TRENCH WITH SOIL AND TAMP.
4. PLACE SINGLE ROW OF STAPLES AT 12" SPACING.
5. USE STAPLE CHECK FOR CHANNEL SLOPES LESS THAN 2.5% GRADE AT 100' INTERVALS. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND AT 4" SPACING.
6. USE BLANKET CHECKS FOR THE FOLLOWING SLOPES:
   2.5%-3% 100' INTERVALS
   3%-5% 50' INTERVALS
   5%-7% 25' INTERVALS
7. CRITICAL POINTS SHALL BE SECURED WITH PROPER STAPLE PATTERNS.

REVISION:

APPROVED: JANUARY 8, 2020
MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.404 | **3 OF 3**

APPROVED: 1-8-2020
REVISED:

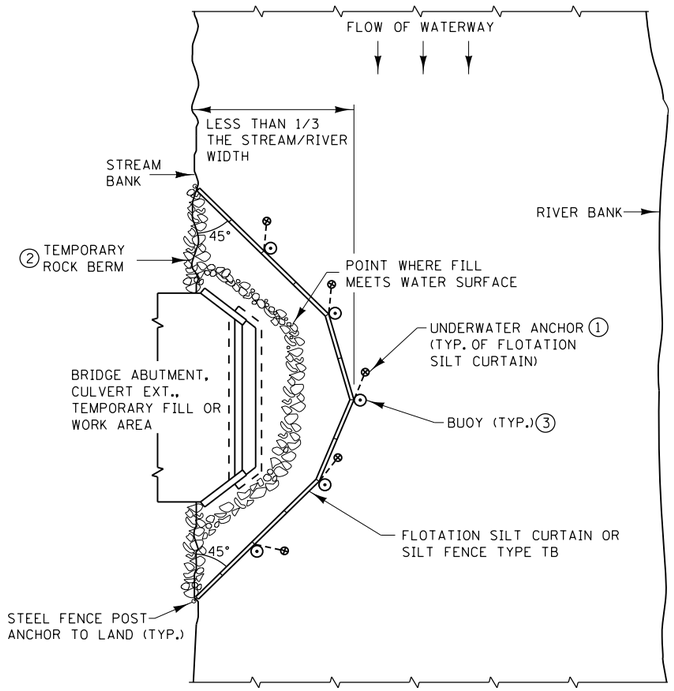
THOMAS STYBRICKI
STATE DESIGN ENGINEER

PERMANENT EROSION CONTROL

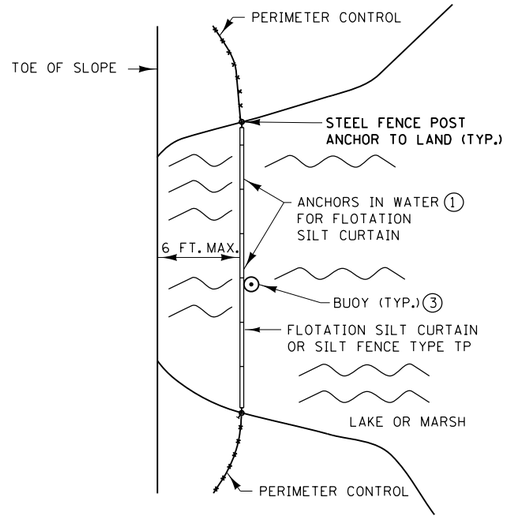
REPP (BLANKET) STAPLE PATTERN FOR SLOPES

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 46 OF 359 SHEETS

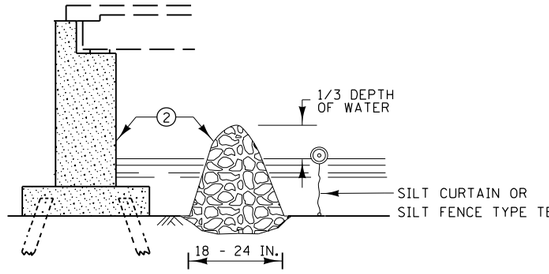
pdf-B and W.pltcfg 1:24:34 PM H:\CHKA\0T412321\CAD\MS\plans\Std_Plans\s404.3_spn.dgn bmi.tbl
Tom Styb 3/18/2022



PLAN VIEW FOR STREAM ⑤



PLAN VIEW FOR LAKE OR MARSH ⑤



TEMPORARY ROCK BERM
FOR SEDIMENT CONTROL

INSTALLATION GUIDELINES
SILT FENCE TYPE TB

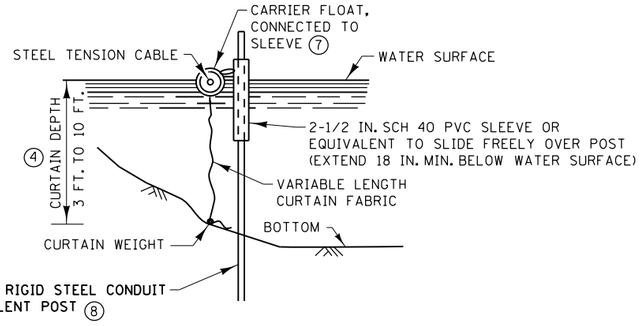
MINIMUM WATER DEPTH: 1 FT.
MAXIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: STILL WATER

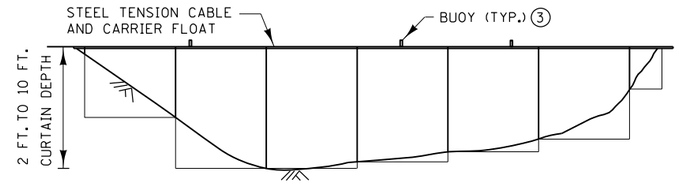
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 2 FT./SEC.
MAXIMUM WAVE HEIGHT: 1 FT

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: MOVING WATER

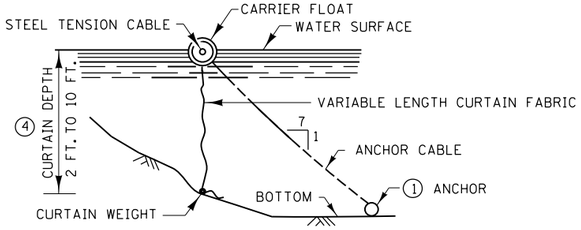
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.
MAXIMUM WAVE HEIGHT: 2 FT.



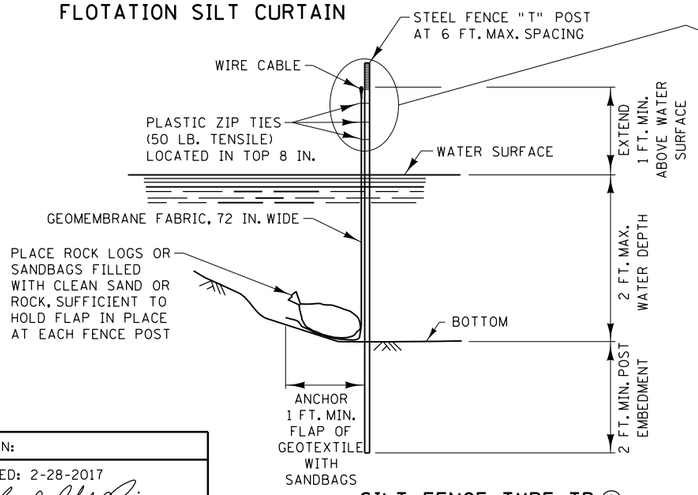
ALTERNATE FLOTATION SILT CURTAIN



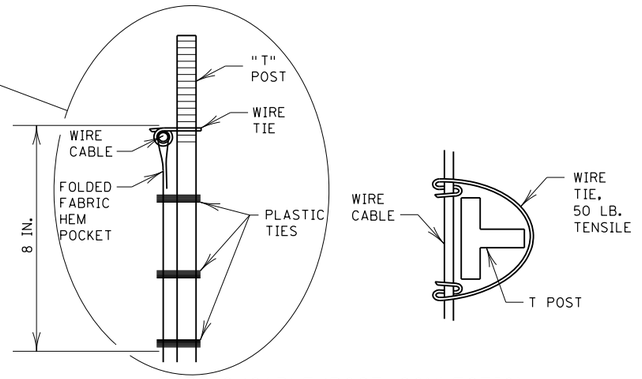
FRONT VIEW FOR FLOTATION SILT CURTAIN



FLOTATION SILT CURTAIN



SILT FENCE TYPE TB ⑥



FABRIC/CABLE/POST CONNECTION

NOTES:

SEE SPECS. 2573, 3886, 3887 & 3893.

① FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.

② IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.

③ ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.

④ MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB.

⑤ SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.

⑥ EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.

⑦ ANCHOR FLOAT MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.

⑧ PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

REVISION:

APPROVED: 2-28-2017

STATE DESIGN ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 | **1 OF 8**

APPROVED: 2-28-2017
REVISED:

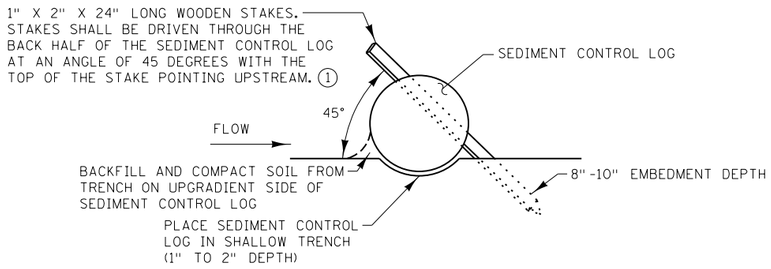
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

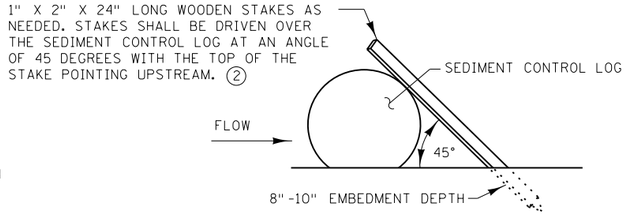
SILT CURTAIN OR SILT FENCE TYPE TB

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 47 OF 359 SHEETS

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10/18/2022

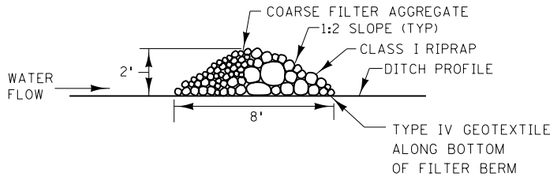


TYPES: STRAW, WOOD FIBER, OR COIR

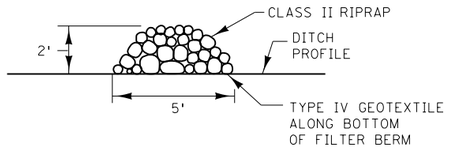


TYPES: WOOD CHIP, COMPOST, OR ROCK

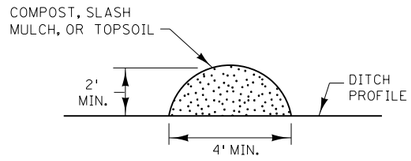
SEDIMENT CONTROL LOGS



TYPE 3 (ROCK WEEPER)

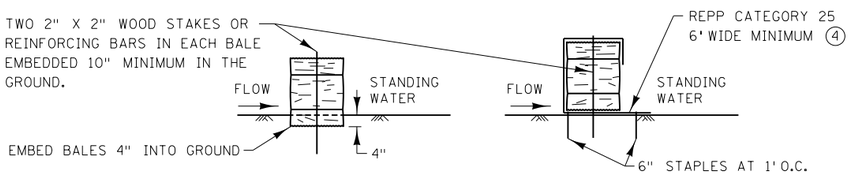


TYPE 5 (ROCK)



TYPE 1 (COMPOST), TYPE 2 (SLASH MULCH), OR TYPE 4 (TOPSOIL)

FILTER BERMS



EMBEDMENT METHOD

REPP (BLANKET) METHOD (ALTERNATE)

BALE BARRIERS (3)

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3149, 3874, 3882, 3885, 3886, AND 3897.

(1) SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.

(2) PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.

(3) TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6" MAXIMUM DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14" X 18" X 36" LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.

(4) INSTEAD OF TRENCHING, PLACE BALE ON THE REPP (BLANKET) AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

REVISION:

APPROVED: JANUARY 8, 2020

MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405	2 OF 8

APPROVED: 1-8-2020
REVISED:

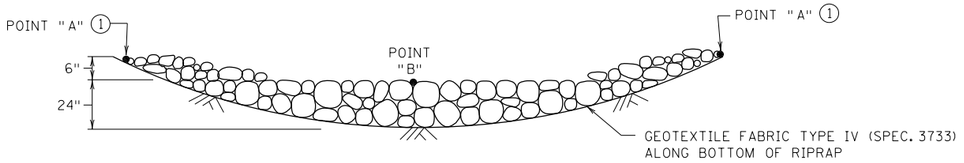
THOMAS STYRBICKI
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

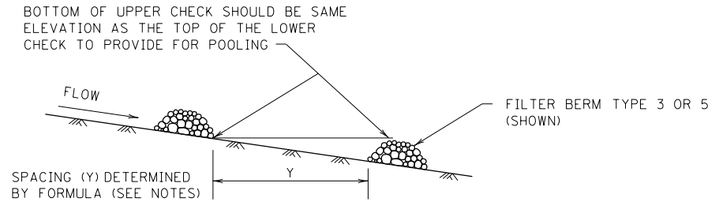
FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 48 OF 359 SHEETS

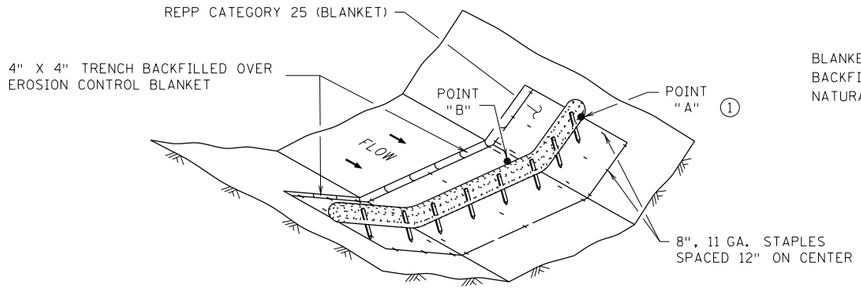
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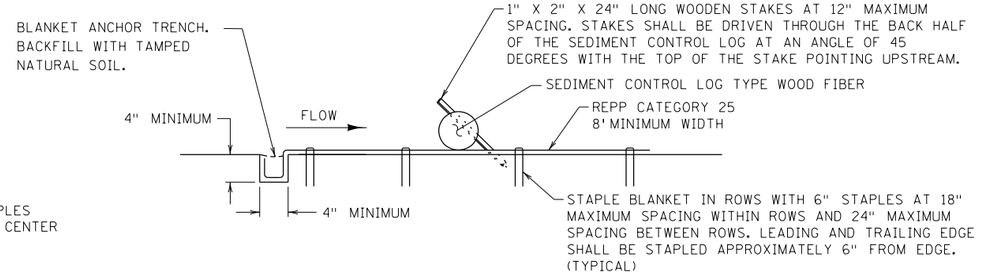


ROCK DITCH CHECKS
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) ③
FOR USE ON ROUGH-GRADED AREAS
ONLY FOR USE OUTSIDE CLEAR ZONE ②

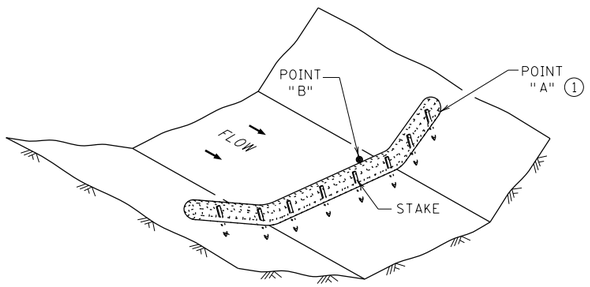


DITCH CHECK SPACING
FOR ALL FILTER BERM TYPES





SEDIMENT CONTROL LOG TYPE REPP (BLANKET) SYSTEM ④



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST ⑤
FOR USE ON ROUGH GRADED AREAS

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH THE ENDS FACING UPSTREAM.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT.)}}{\text{\% CHANNEL SLOPE}} \times 100$$

① POINT "A" MUST BE A MINIMUM OF 6" HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

② ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

③ DITCH GRADE 3% - 5%. MAX. FLOW VELOCITY 12 FT./SEC.

④ DITCH GRADE 1.5% - 3%. MAX. FLOW VELOCITY 4.5 FT./SEC.

⑤ DITCH GRADE 1.5% - 3%. MAX. FLOW VELOCITY 1.5 FT./SEC.

REVISION:

APPROVED: JANUARY 8, 2020
MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 | **3 OF 8**

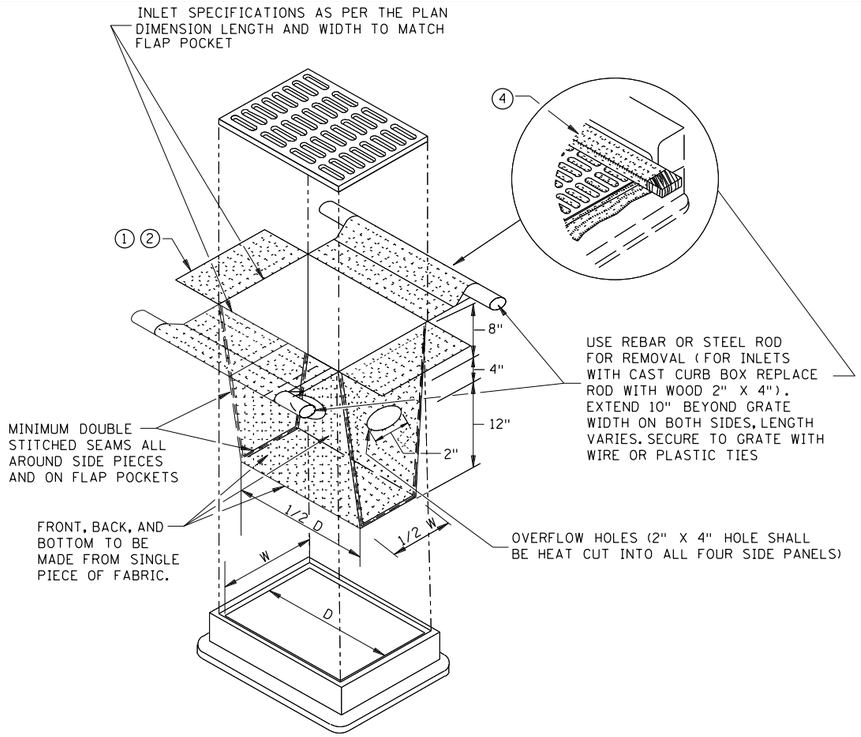
APPROVED: 1-8-2020
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL
DITCH CHECK

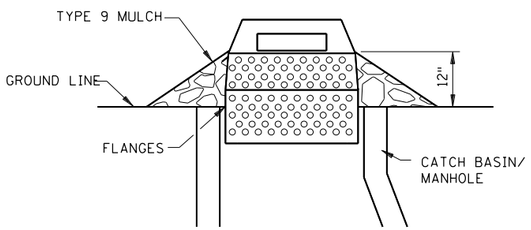
SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 49 OF 359 SHEETS

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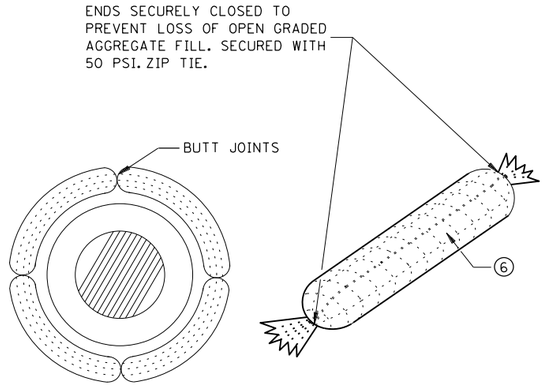
FILTER BAG INSERT ③

(CAN BE INSTALLED IN ANY INLET TYPE
WITH OR WITHOUT A CURB BOX)

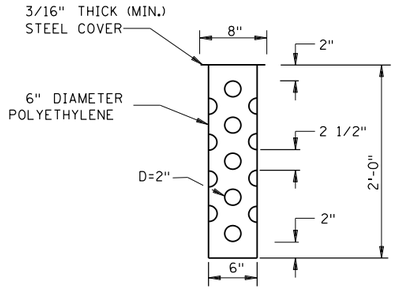


SEDIMENT CONTROL INLET HAT

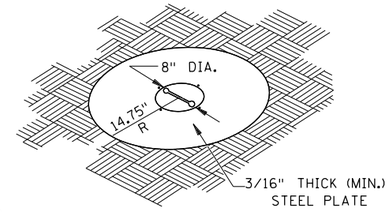
NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL
OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE
THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW
FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING,
FLANGES AND A LID/COVER.



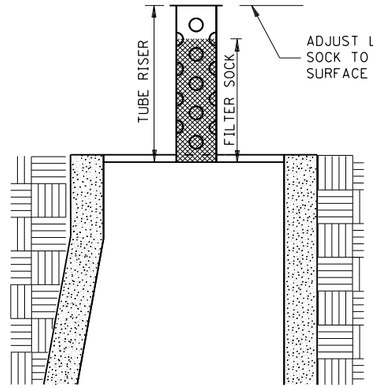
ROCK LOG/COMPOST LOG



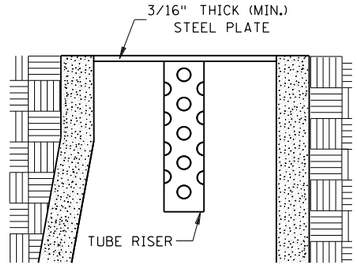
TUBE RISER



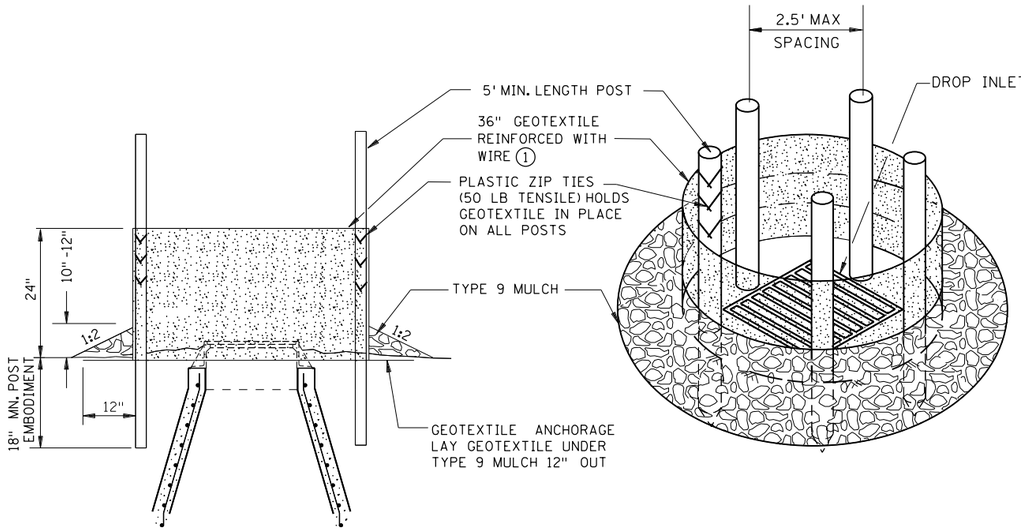
PERSPECTIVE VIEW



SECTION
(UP POSITION)



SECTION
(DOWN POSITION)



SILT FENCE RING AND ROCK FILTER BERM

USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 or LESS

POP-UP HEAD

NOTES:

SEE SPECS. 2573, 3137, & 3886.

DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEED TRAFFIC FLOW.

1. ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
2. FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
3. INSTALLATION NOTES:
   DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
4. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
5. SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
6. GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

REVISION:

APPROVED: 2-28-2017

STATE DESIGN ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405	4 OF 8

APPROVED: 2-28-2017
REVISED:

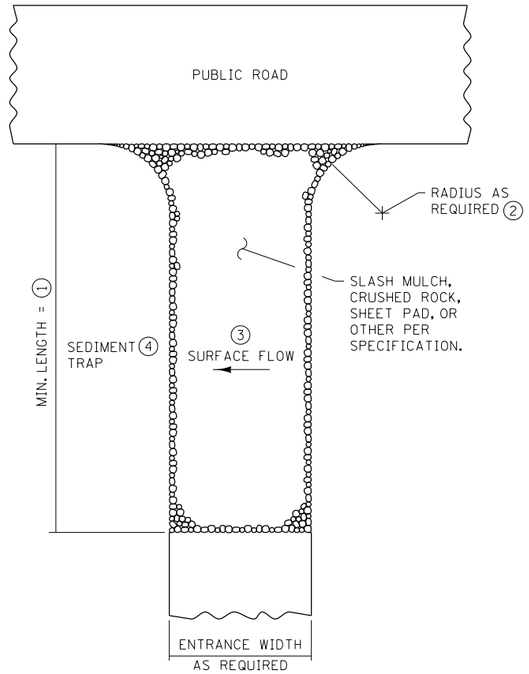
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

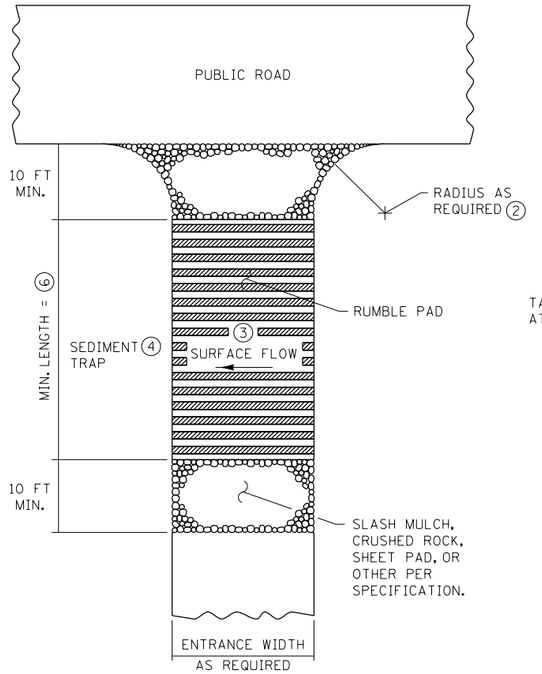
STORM DRAIN INLET PROTECTION

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 50 OF 359 SHEETS

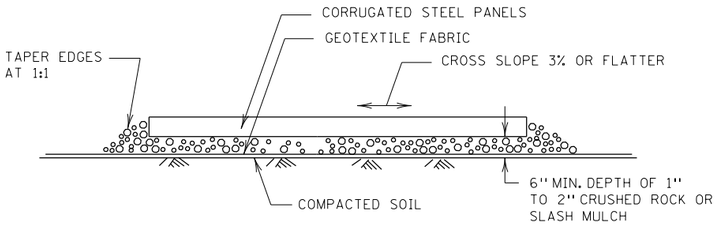
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7/18/2022



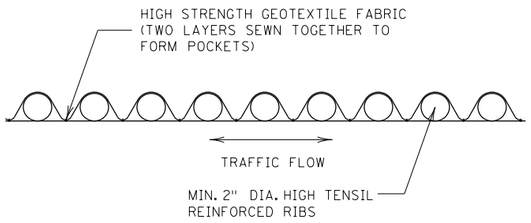
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT (5)(7)



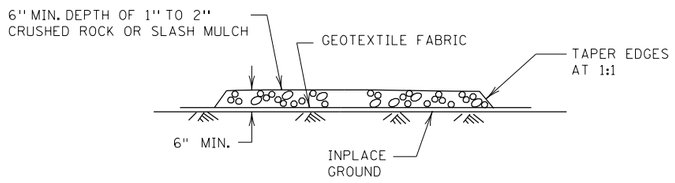
RUMBLE PAD CONSTRUCTION EXIT (5)(7)



RUMBLE PAD



SHEET PAD



SLASH MULCH OR CRUSHED ROCK

NOTES:

SEE SPECS. 2573 & 3882.

(1) MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.

(2) PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.

(3) IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.

(4) IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.

(5) IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.

(6) MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.

(7) MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

REVISION:

APPROVED: 2-28-2017

CHIEF ENGINEER'S SIGNATURE

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 | 5 OF 8

APPROVED: 2-28-2017
REVISED:

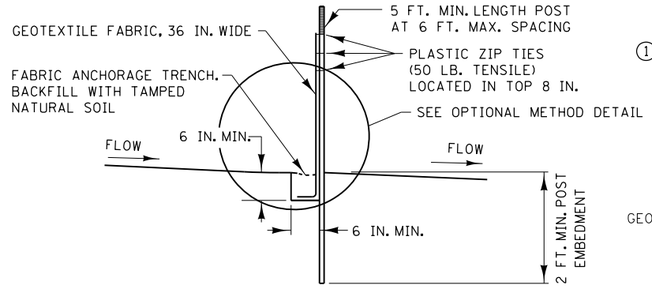
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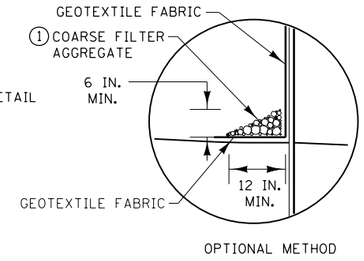
TEMPORARY SEDIMENT CONTROL

STABILIZED CONSTRUCTION EXIT

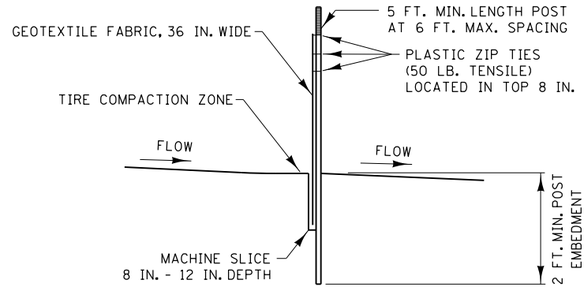
SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 51 OF 359 SHEETS

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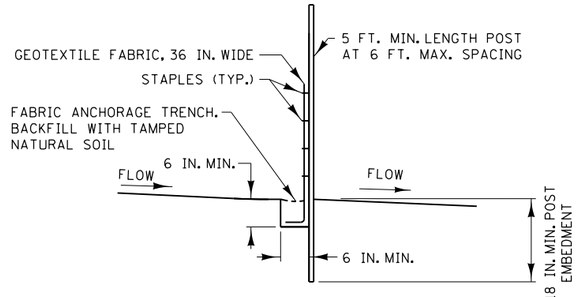




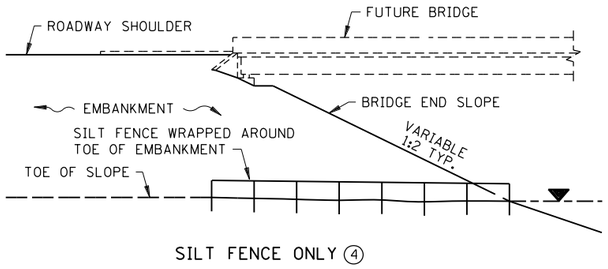
SILT FENCE TYPE HI ②
(HAND INSTALLED)



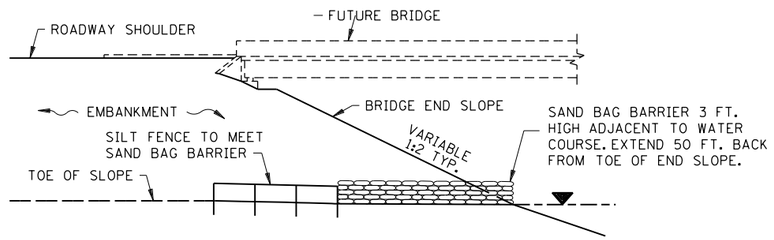
SILT FENCE TYPE MS ②
(MACHINE SLICED)



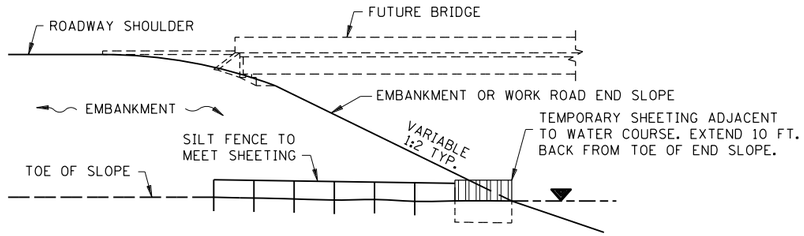
SILT FENCE TYPE PA ③
(PREASSEMBLED)



SILT FENCE ONLY ④

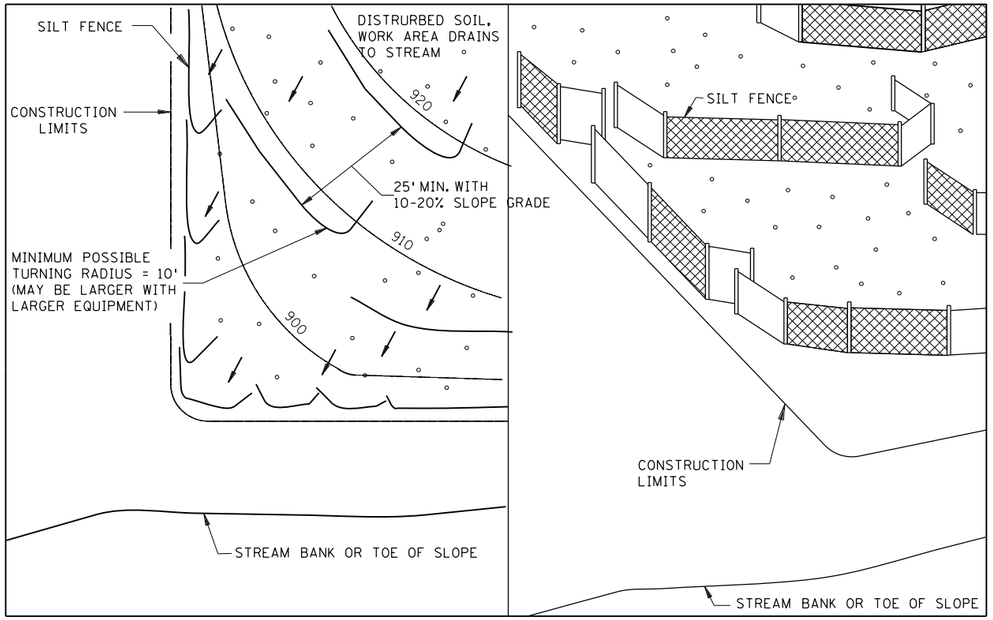


SILT FENCE WITH SAND BAGS ⑤



SILT FENCE WITH SHEETING ⑥

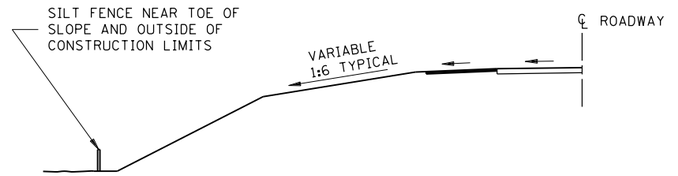
INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



PLAN VIEW

PERSPECTIVE VIEW

J-HOOK INSTALLATION



LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

SEE SPECS. 2573, 3149 & 3886.

① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

② TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.

③ TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.

④ WATER COURSE FLOW VELOCITY: STANDING.
CONTRIBUTING SLOPE AREA: 1./2 ACRE.

⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1. ACRE.

⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC.
CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:

APPROVED: 2-28-2017

STATE DESIGN ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 | 6 OF 8

APPROVED: 2-28-2017
REVISED:

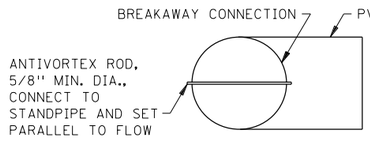
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

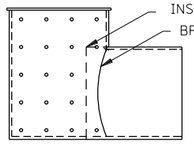
SILT FENCE

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 52 OF 359 SHEETS

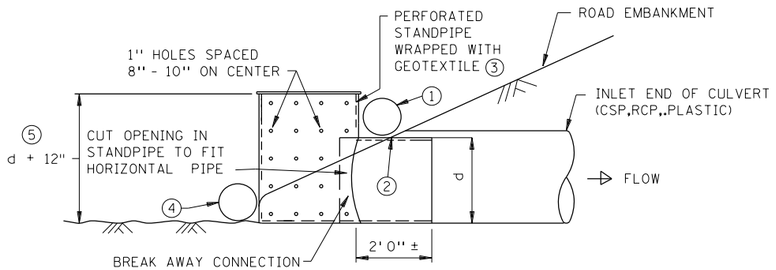
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PLAN VIEW



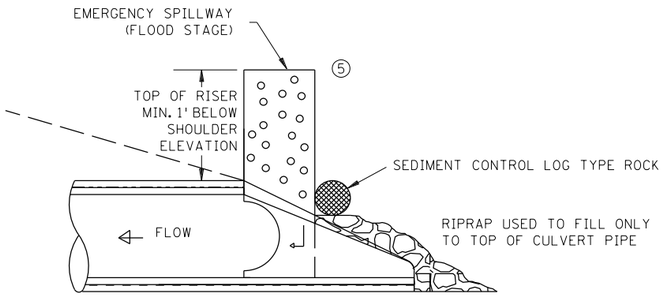
CULVERT STANDPIPE



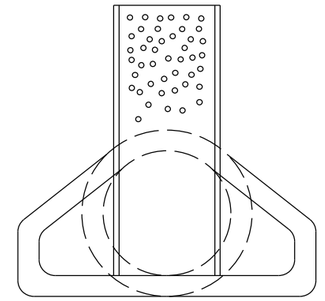
ELEVATION VIEW OF CULVERT INSTALLATION

CULVERT STANDPIPE INSERT (D-RISER)

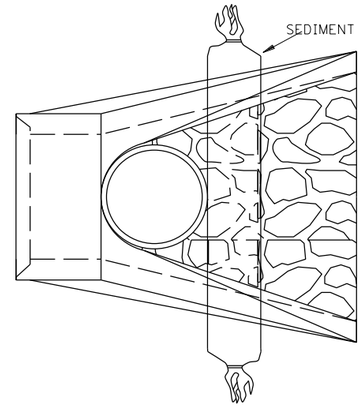
d= CULVERT SIZE: 12" - 36"



LONGITUDINAL SECTION



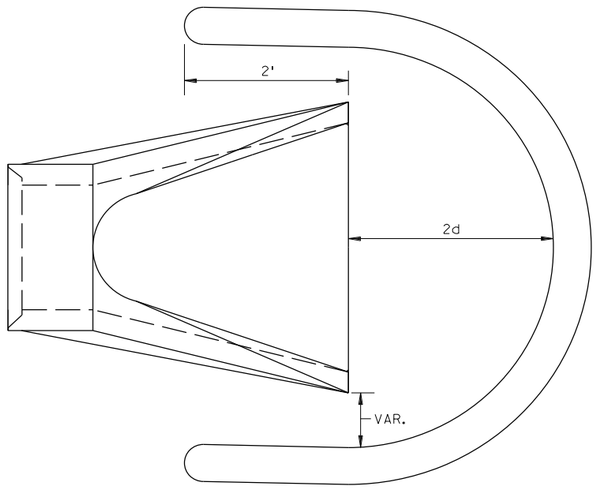
END VIEW



NOTE: SEDIMENT CONTROL LOG TYPE ROCK MAY BE WRAPPED AROUND RISER

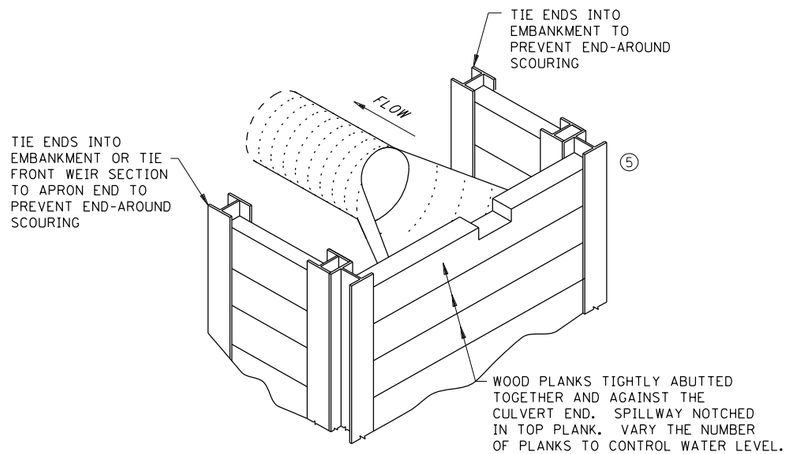
TOP VIEW

CULVERT STANDPIPE INSERT (D-RISER)



SEDIMENT CONTROL LOG WEIR
(COMPOST, WOOD CHIP, OR ROCK)

d = CULVERT SIZE: 12"-36"



WOOD PLANK WEIR

NOTES:

SEE SPECS. 2573, 3891 & 3893.

FOR USE WHEN TEMPORARY PONDING IS NEEDED IN DITCH SECTIONS FOR SEDIMENT CONTROL.

MANUFACTURED ALTERNATIVES LISTED ON MnDOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED AT NO ADDITIONAL COST.

(1) ROCK LOG OR SANDBAG TO HOLD STANDPIPE AND ACT AS A SEAL BETWEEN RISER PIPE AND CULVERT.

(2) PLACE CULVERT APRON AND SLIDE TEMPORARY STANDPIPE INTO CSP OR RCP CULVERT.

(3) ALL GEOTEXTILE USED FOR CULVERT PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886 FOR MACHINE SLICED.

(4) ROCK LOG OR RIP RAP TO HOLD STANDPIPE AND ACT AS A FILTER BETWEEN RISER PIPE AND CULVERT.

(5) HEIGHT OVERFLOW NOT TO CAUSE FLOODING OF ROAD OR ADJACENT PROPERTIES.

REVISION:

APPROVED: 2-28-2017

STATE DESIGN ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405	8 OF 8
APPROVED: 2-28-2017 REVISED:	

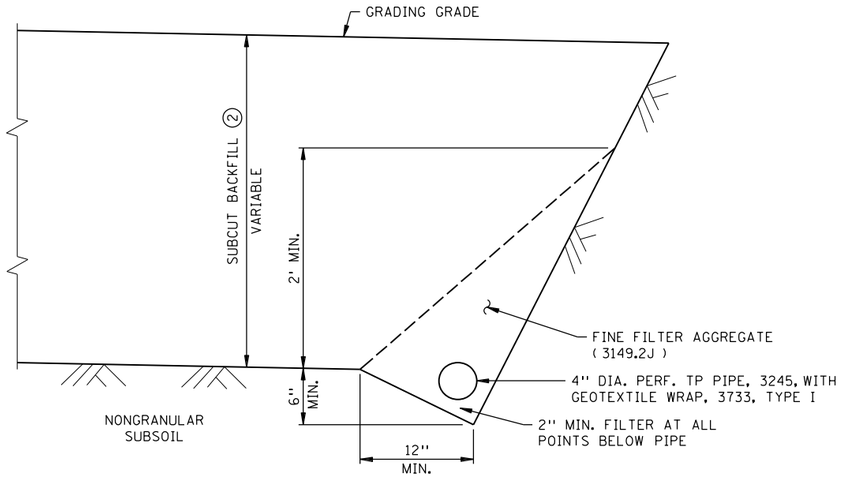
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

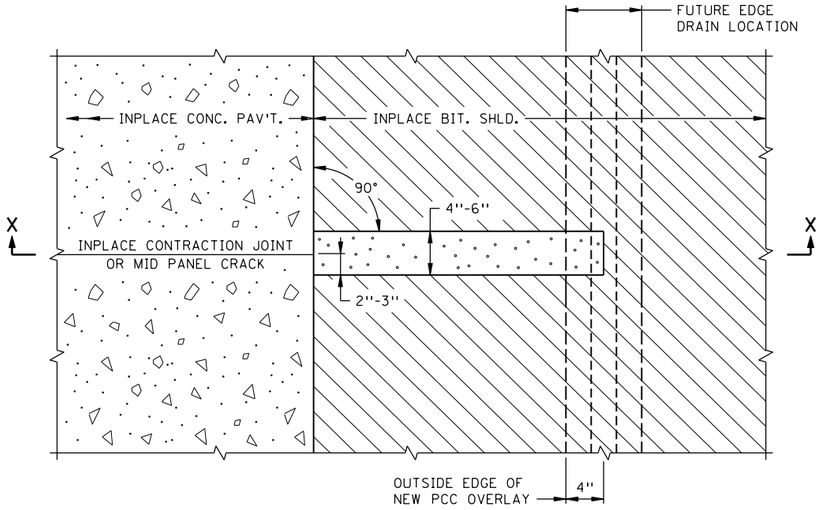
CULVERT END CONTROLS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 53 OF 359 SHEETS

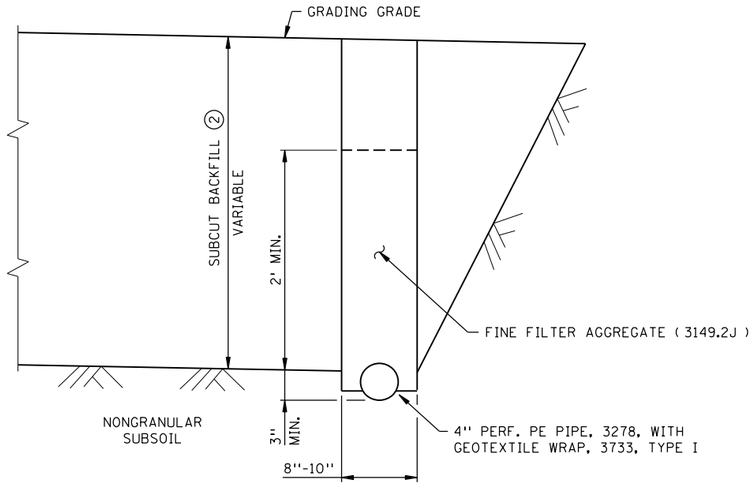
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2022



TYPICAL SECTION (OPTION NO. 1) ①



PLAN VIEW



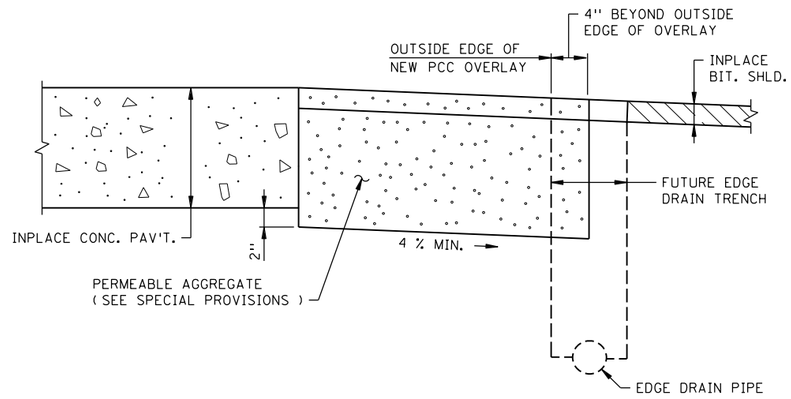
TYPICAL SECTION (OPTION NO. 2) ①

SUBSURFACE DRAIN, SUBCUT DRAIN TYPE

NOTES:

① MAY NEED TO BE MODIFIED FOR SPECIFIC PROJECTS. SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS. OPTION NO. 2 MAY ONLY BE USED WHEN PIPE IS TO BE PLACED BY MACHINE TRENCHER.

② GRANULAR, SELECT GRANULAR OR SELECT GRANULAR MODIFIED. (AS SHOWN IN DESIGN RECOMMENDATION LETTER).



SECTION X-X

INTERCEPTOR DRAIN DETAIL ①

NOTE:

① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.

REVISION:

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STATE DESIGN ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.430 | 1 OF 1

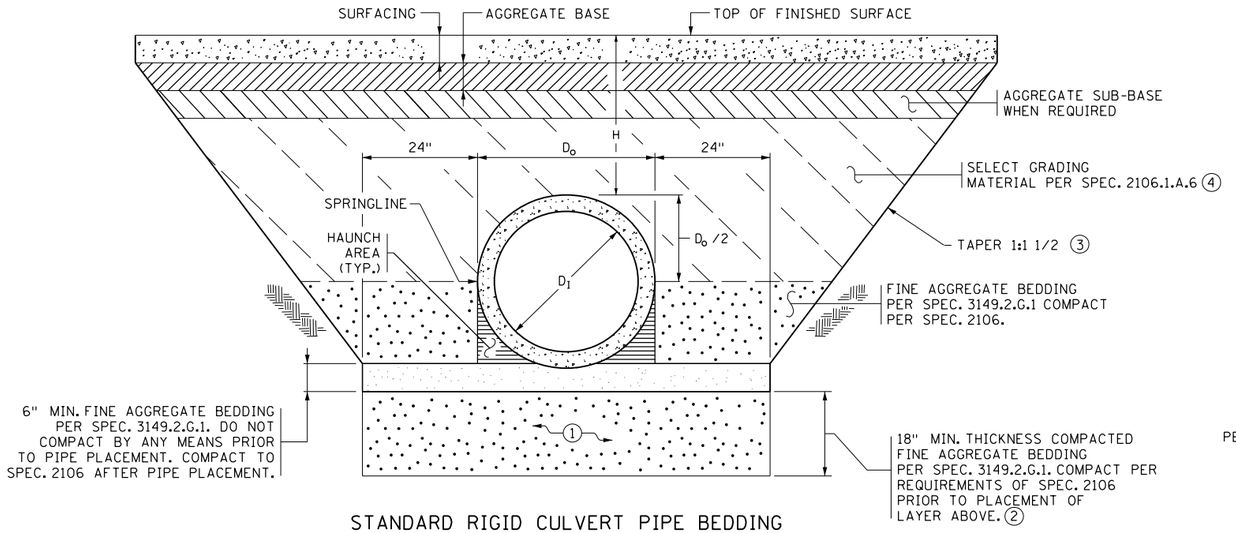
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REVISED:

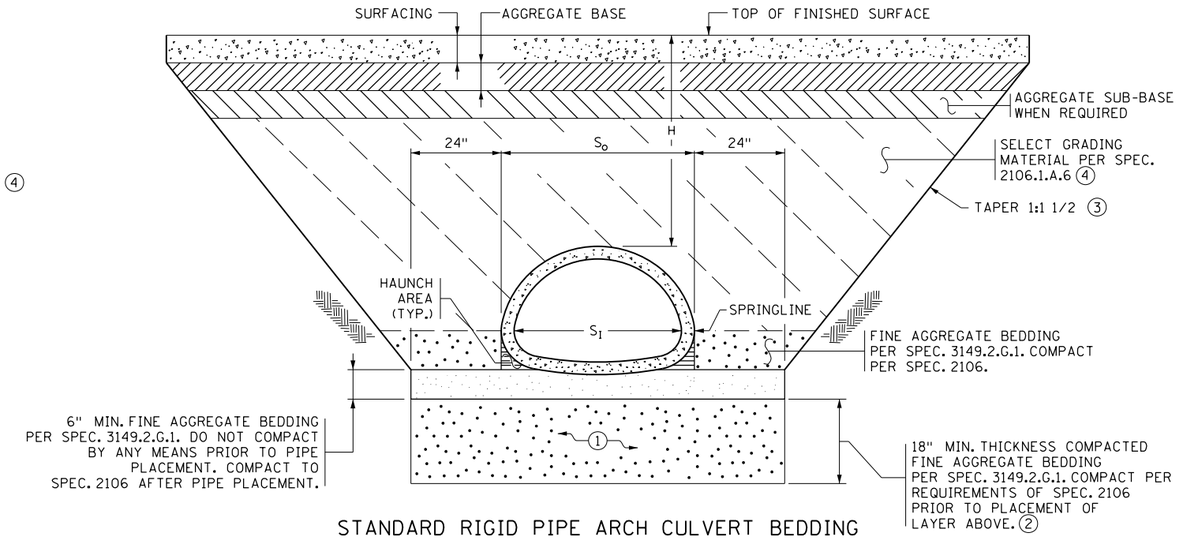
SUBSURFACE DRAINS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 54 OF 359 SHEETS

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STANDARD RIGID CULVERT PIPE BEDDING



STANDARD RIGID PIPE ARCH CULVERT BEDDING

-LEGEND-

D_1 = INSIDE DIAMETER OF ROUND PIPE (INCHES).
D_o = OUTSIDE DIAMETER OF ROUND PIPE (INCHES).
S_1 = INSIDE SPAN OF PIPE-ARCH (INCHES).
S_o = OUTSIDE SPAN OF PIPE-ARCH (INCHES).
H = FILL COVER HEIGHT OVER PIPE (FEET).

= UNDISTURBED SOIL

= COMPACTED BEDDING

= LOOSE BEDDING, COMPACTED AFTER PIPE PLACEMENT

CONSTRUCTION SEQUENCE

1. PLACE AND COMPACT 18" OF FINE AGGREGATE BEDDING TO THE REQUIREMENTS OF SPEC. 2106.
2. LOOSELY PLACE 6" OF FINE AGGREGATE BEDDING MATERIAL (SPEC. 3149.2.G.1) TO GRADE. DO NOT COMPACT PRIOR TO PIPE PLACEMENT.
3. FOR PIPES WITH BELL, REMOVE MATERIAL IN BELL AREA PRIOR TO PLACEMENT.
4. FURNISH AND INSTALL PIPE TO GRADE.
5. AFTER PLACEMENT OF THE PIPE, PLACE ADDITIONAL BEDDING AND COMPACT THE FULL LENGTH ON BOTH SIDES OF THE PIPE UNDERNEATH THE HAUNCH AREA BY FIRST SHOVEL SLICING (MANUALLY SHOVE THE BLADE END OF A SHOVEL AT AN ANGLE DOWN THE ENTIRE LENGTH OF THE PIPE IN THE HAUNCHH AREA) THEN COMPACT THE HAUNCH AT AN ANGLE USING A POWERED MECHANICAL OR PNEUMATIC DEVICE (I.E. POLE TAMPER, JUMPING JACK, OR SIMILAR).
6. COMPACT THE REMAINING MATERIAL OUTSIDE THE HAUNCH AREA TO THE REQUIREMENTS OF SPEC. 2106 ENSURING THAT THE ENTIRE LENGTH OF PIPE IS SUPPORTED UNIFORMLY BY BEDDING.
7. PLACE AND COMPACT BACKFILL EVENLY AND SIMULTANEOUSLY IN 6" LIFTS ON EACH SIDE OF THE PIPE UP TO THE SPRINGLINE WHEN COMPACTED.
8. COMPLETE REMAINING BACKFILL.

NOTES

STANDARD BEDDING FOR RIGID PIPE CULVERTS WITHOUT TREATMENTS.

RIGID PIPE INCLUDES CONCRETE.

ENTRANCE CULVERTS (FIELD AND DRIVEWAY CULVERTS) DO NOT NEED BEDDING UNLESS SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS.

UNLESS OTHERWISE NOTED IN THE PLAN, BEDDING QUANTITIES ARE COMPUTED FOR THE FULL LENGTH OF THE PIPE AND APRON, AND WILL NOT BE ADJUSTED FOR CHANGES TO MEET OSHA REQUIREMENTS.

WHEN RIPRAP IS REQUIRED AT THE APRON END, SEE STANDARD PLATE OR PLAN FOR RIPRAP INSTALLATION AND QUANTITIES. FOR APRONS WITHOUT RIPRAP PLACE 6" MIN. FINE AGGREGATE BEDDING UNDER APRONS. USE A TRENCH WIDTH EQUAL TO THE PIPE TRENCH WIDTH.

CONTRACT PAY ITEM FOR FINE AGGREGATE BEDDING INCLUDES THE COST OF EXCAVATION, PLACEMENT AND COMPACTION.

EXCAVATION AND BACKFILL WITH SELECT GRADING MATERIAL ARE NOT TABULATED SEPARATELY BUT ARE INCLUDED IN THE CONTRACT UNIT PRICE OF THE RELEVANT CULVERT PAY ITEM.

EXCAVATE & CONSTRUCT ALL TRENCHES AND SLOPES PER OSHA REQUIREMENTS.

ALL SLOPES SHOWN AS (V) : (H).

PIPE SIZE IS BASED ON THE NOMINAL INSIDE DIAMETER OR SPAN.

PROTECT ALL PIPE DURING CONSTRUCTION PER SPEC. 2501.

PLACE MULTIPLE PIPE CULVERTS WITH A CLEARANCE OF 24 INCHES OR GREATER BETWEEN STRINGS OF PIPE.

(1) IF APPROVED BY THE ENGINEER, IN WET CONDITIONS THE CONTRACTOR MAY SUBSTITUTE 18" OF COARSE FILTER AGGREGATE PER SPEC. 3149.2.H COMPACTED TO THE QUALITY COMPACTION REQUIREMENTS OF SPEC. 2106. WRAP WITH GEOTEXTILE FABRIC TYPE IV PER SPEC. 3733. SEAM ALL FABRIC SIDES AND ENDS PER SPEC. TABLE 3733-1 INCLUDING FOOTNOTE (e) OR OVERLAP A MINIMUM OF 3 FT., ALL AT NO ADDITIONAL COST.

(2) FOR INSTALLATIONS ON INTACT BEDROCK, OMIT THIS LAYER.

(3) OVER-EXCAVATION BENEATH TAPERS IS NOT PERMITTED UNLESS REQUIRED BY OSHA. (TYP.)

(4) MAXIMUM EMBANKMENT PARTICLE SIZE WITHIN 2 FT. OF RIGID PIPE IS 3".

REVISION:

APPROVED: JANUARY 18, 2019

Kevin Western
STATE AERONAUTICS ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.441 | **1 OF 1**

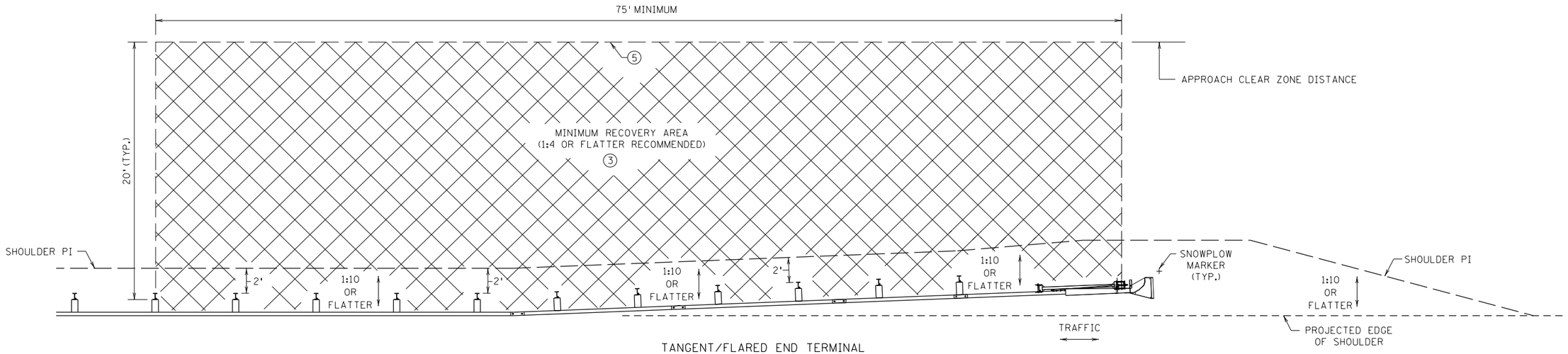
APPROVED: 01-18-2019
REVISED:

Tom Sorel
STATE DESIGN ENGINEER

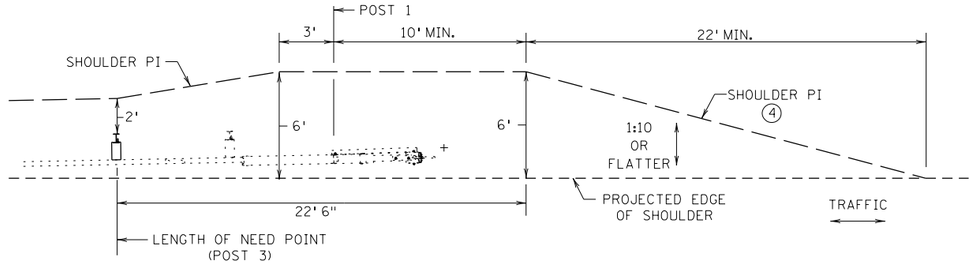
STANDARD CULVERT BEDDING FOR RIGID PIPE (WITHOUT TREATMENTS)

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 55 OF 359 SHEETS

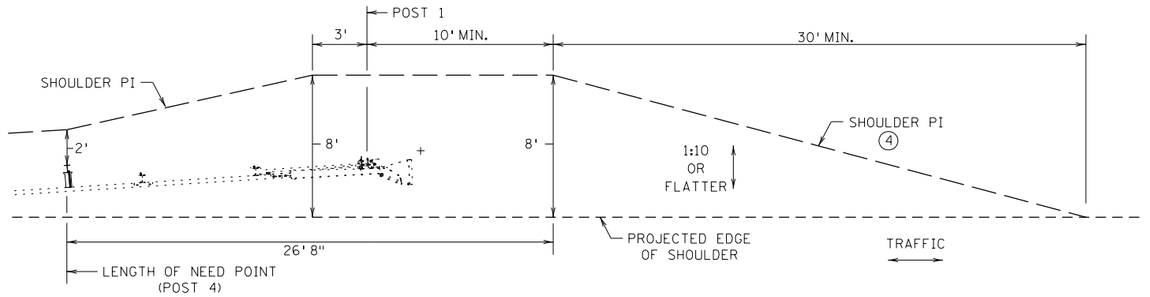
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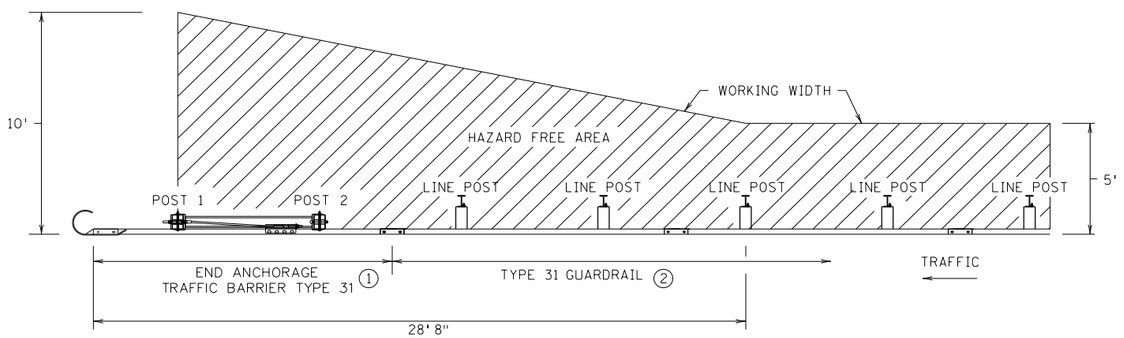
TANGENT/FLARED END TERMINAL
MINIMUM RECOVERY AREA



TANGENT END TERMINAL GRADING
(SOFTSTOP SHOWN)



FLARED END TERMINAL GRADING
(MFLEAT SHOWN)



TYPE 31 END ANCHORAGE
STANDARD POST SPACING
TRAILING END HAZARD FREE AREA

NOTES:

1. SEE STANDARD PLAN 5-297.692.
2. SEE STANDARD PLAN 5-297.690.
3. THIS AREA FREE OF FIXED OBJECTS. SLOPES BETWEEN 1:3 AND 1:4 PERMITTED WHEN 1:4 OR FLATTER IS NOT POSSIBLE. FOR SLOPES STEEPER THAN 1:3, THIS AREA SHOULD BE SIMILAR IN CROSS SECTION TO THE UNSHIELDED ROADSIDE AREA UPSTREAM OF THE END TERMINAL.
4. SMOOTHLY TRANSITION THE GRADING PLATFORM TO EXISTING SIDE SLOPE SO THE ENTIRE ROADSIDE APPROACH TO THE BARRIER REMAINS TRAVERSABLE.
5. GRADUALLY BLEND SLOPE FROM TRAVERSABLE AREA TO STEEP EXISTING SLOPE (WHEN SLOPE IS STEEPER THAN 1:6).

REVISION:

APPROVED: 05-14-2021

NANCY YOO
DESIGN SUPPORT DIRECTOR
OFFICE OF TRANSPORTATION SYSTEM MANAGEMENT

MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.601 | **1 OF 4**

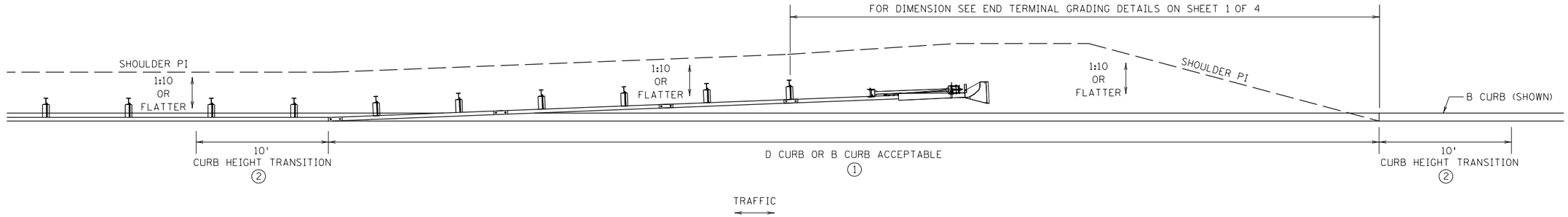
APPROVED: 05-14-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

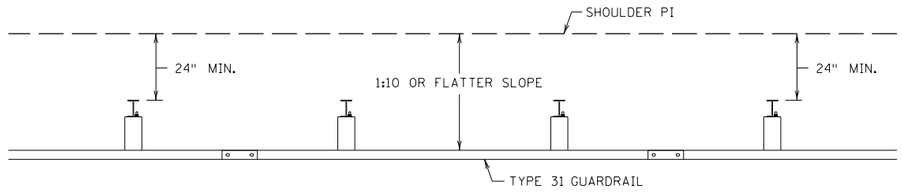
GUARDRAIL / END TREATMENTS MISCELLANEOUS DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 56 OF 359 SHEETS

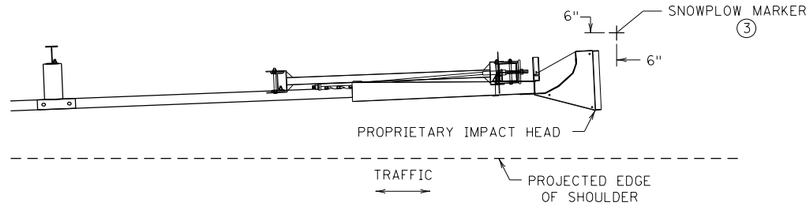
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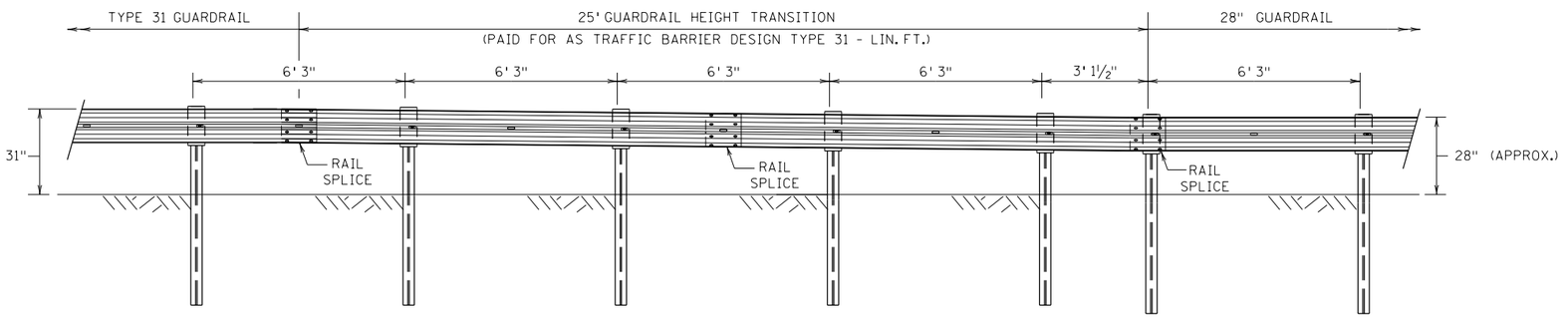
INPLACE CURB AT END TERMINAL



GRADING REQUIREMENTS AT TYPE 31 GUARDRAIL



SNOWPLOW MARKER LOCATION AT END TERMINAL/END ANCHORAGE



TYPE 31 W-BEAM GUARDRAIL HEIGHT TRANSITION TO 28" ④

NOTES:

1. ① IF INPLACE CURB IS OVER 4" HEIGHT, MILL TO 3" HEIGHT.
2. ② CONTINUE MILLING FROM 3" MILLED HEIGHT TO MATCH INPLACE CURB HEIGHT.
3. ③ SNOWPLOW MARKER (X3-5) WITH A SQUARE-TUBE THREE-WALL SIGN BASE PER STANDARD PLAN 5-297.721. TOP OF POST SHALL BE 3' ABOVE THE HEIGHT OF THE END TERMINAL/END ANCHORAGE. PLACE MARKER AT BOTH ENDS OF GUARDRAIL RUN.
4. ④ USE ONLY WHEN CONNECTING TO GUARDRAIL TYPES 8338 AND 8307.

REVISION:

APPROVED: 05-14-2021

NANCY YOO
DESIGN SUPPORT DIRECTOR
OFFICE OF TRANSPORTATION SYSTEM MANAGEMENT

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.601 | **2 OF 4**

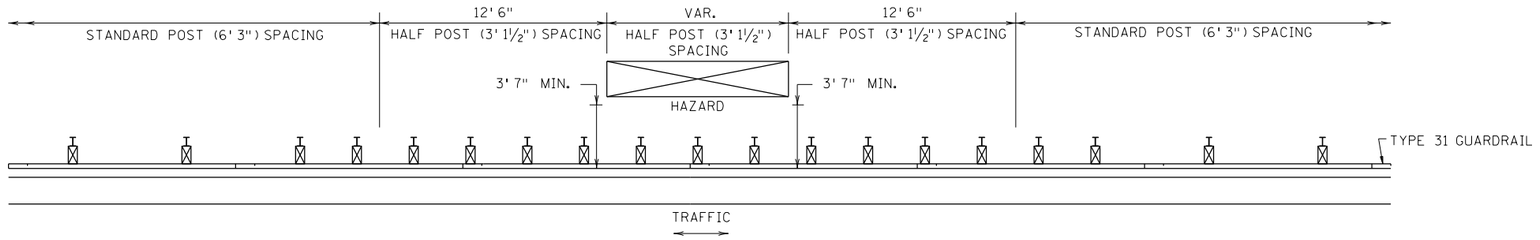
THOMAS STYRBICKI
STATE DESIGN ENGINEER

APPROVED: 05-14-2021
REVISED:

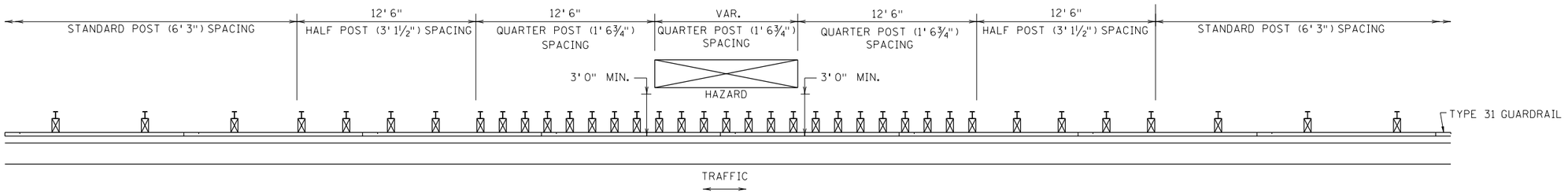
GUARDRAIL / END TREATMENTS MISCELLANEOUS DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 57 OF 359 SHEETS

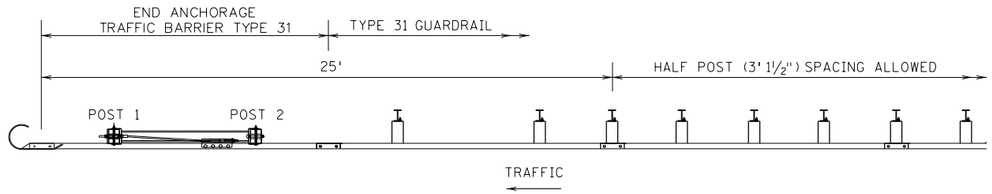
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GUARDRAIL STIFFENING GENERAL - HALF POST SPACING

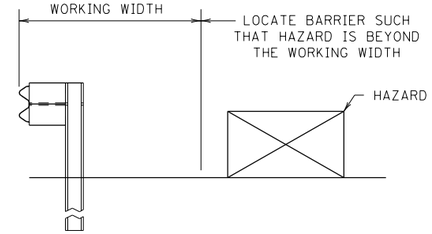


GUARDRAIL STIFFENING GENERAL - QUARTER POST SPACING



GUARDRAIL STIFFENING AT TYPE 31 END ANCHORAGE

ESTIMATED WORKING WIDTH FOR TYPE 31 GUARDRAIL	
STANDARD POST (6' 3") SPACING	5' 0"
STANDARD POST (6' 3") SPACING 9' POST AT 1:2 BREAKLINE	5' 5"
HALF POST (3' 1½") SPACING	3' 7"
QUARTER POST (1' 6¾") SPACING	3' 0"



BARRIER LOCATION / WORKING WIDTH

NOTES:

REGARDLESS OF TRAFFIC DIRECTION, ALL GUARDRAIL STIFFENING SHALL TRANSITION INTO AND OUT OF EACH POST SPACING SEGMENT.

REVISION:

APPROVED: 05-14-2021

NANCY YOO
DESIGN SUPPORT DIRECTOR
STATE PROJECTS ENGINEERING AND QUALITY SUPPORT

MINNESOTA DEPARTMENT OF TRANSPORTATION

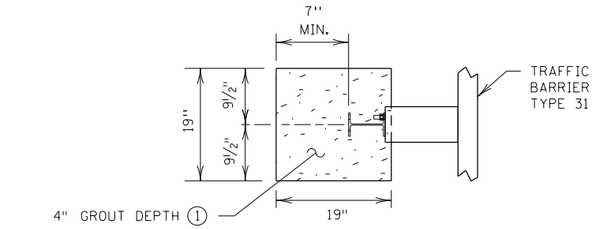
STANDARD PLAN 5-297.601 | **3 OF 4**

APPROVED: 05-14-2021
REVISED:

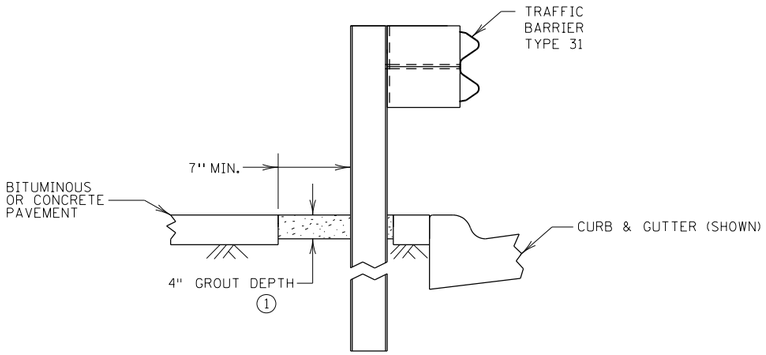
THOMAS STYRBICKI
STATE DESIGN ENGINEER

GUARDRAIL / END TREATMENTS MISCELLANEOUS DETAILS

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Tom Styrbicki 5/18/2022

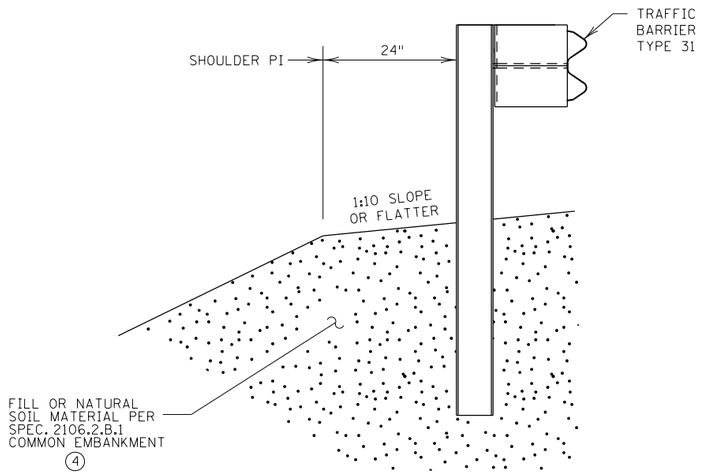


PLAN VIEW

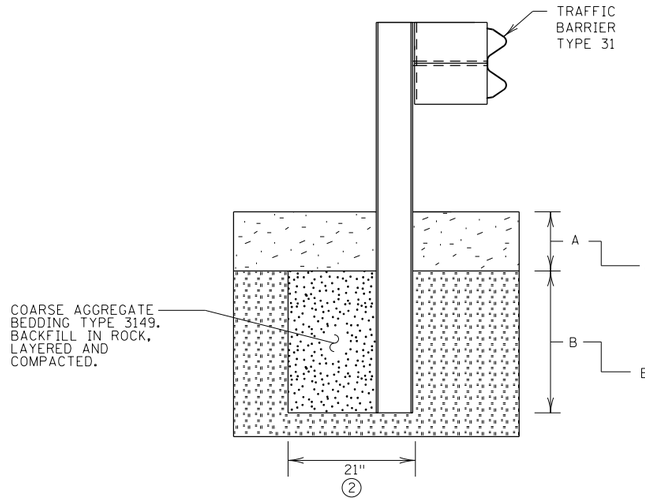


ELEVATION

POST LEAVE-OUT FOR
TRAFFIC BARRIER TYPE 31

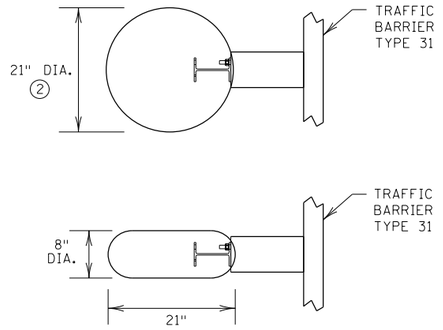


GUARDRAIL POST IN SOIL



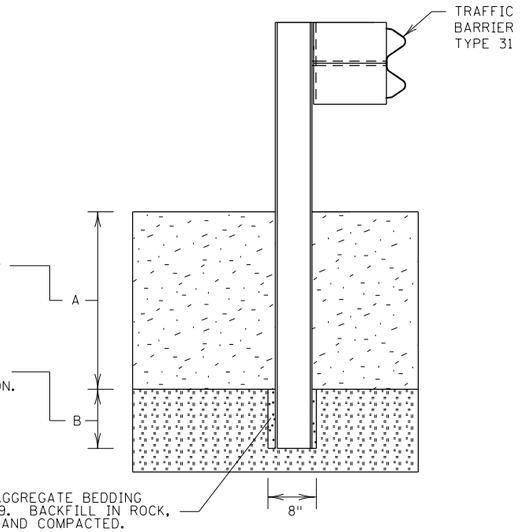
- FOR OVERLYING SOIL DEPTHS (A) RANGING FROM 0" TO 18", THE DEPTH INTO ROCK (B) IS 24".

ELEVATION



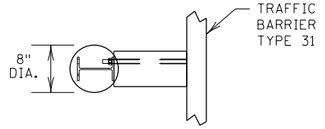
PLAN VIEWS (3)

GUARDRAIL POST IN ROCK
0" TO 18" OVERLYING SOIL DEPTH
(POST HOLE IN ROCK SPECIAL)



- FOR OVERLYING SOIL DEPTHS (A) RANGING FROM 18" TO FULL POST EMBEDMENT DEPTH. THE REQUIRED DEPTH INTO ROCK (B) IS EQUAL TO FULL POST EMBEDMENT DEPTH MINUS (A). FULL POST EMBEDMENT DEPTH FOR BLOCKED OUT W-BEAM IS APPROXIMATELY 42".

ELEVATION



PLAN VIEW

GUARDRAIL POST IN ROCK
18" OR GREATER OVERLYING SOIL DEPTH
(POST HOLE IN ROCK)

NOTES:

1. GROUT IS ONE PART TYPE 1A CEMENT, 14 PARTS SAND, AND 5 PARTS WATER, BY VOLUME.
2. 24" DIAMETER ACCEPTABLE.
3. EITHER HOLE CONFIGURATION (CIRCULAR OR ELONGATED) ACCEPTABLE.
4. MATERIAL SHALL NOT CONTAIN GEOFOAM, TIRE SHREDS, OR OTHER LIGHTWEIGHT FILL MATERIALS. POST SHALL NOT BE DRIVEN THROUGH PAVEMENT OR GEOCELL SLOPE REINFORCEMENT.

REVISION:

APPROVED: 05-14-2021

NANCY YOO
DESIGN SUPPORT DIRECTOR
OFFICE OF TRANSPORTATION SYSTEM MANAGEMENT

MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.601	4 OF 4

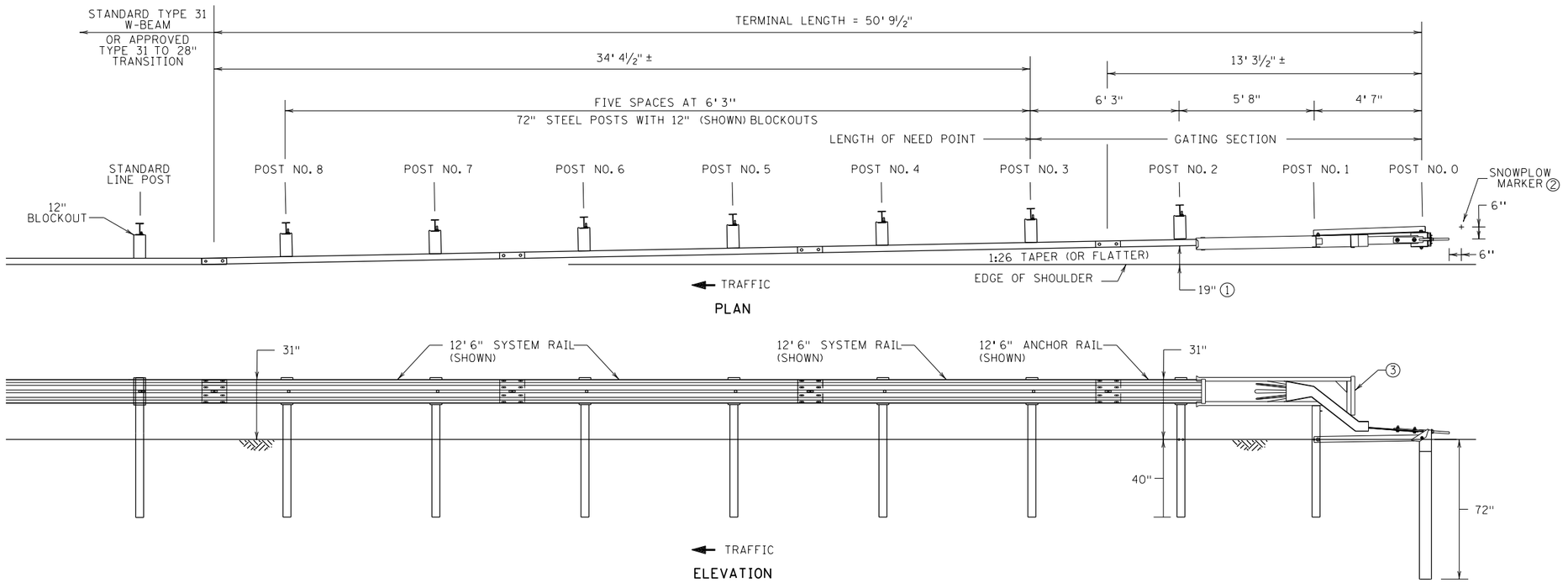
APPROVED: 05-14-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

GUARDRAIL / END TREATMENTS MISCELLANEOUS DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 59 OF 359 SHEETS

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SOFTSTOP
(TRINITY HIGHWAY PRODUCTS)

NOTES:

THIS IS A PROPRIETARY ITEM AS PER SPEC. 1703.

THESE DETAILS ARE FOR DESIGN GUIDANCE INFORMATION ONLY. CHECK WITH MANUFACTURER FOR CURRENT DETAILS AND INSTALLATION INSTRUCTIONS.

ALL TERMINAL RAIL MUST BE STRAIGHT. CURVED TERMINAL RAIL IS NOT ALLOWED.

ALL BOLTS, NUTS, CABLE ASSEMBLIES, CABLE ANCHORS, AND BEARING PLATES SHALL BE GALVANIZED PER MnDOT SPEC. 3392.

POSTS 1 AND 2 ARE PROPRIETARY STEEL YIELDING TERMINAL POSTS.

POST 0 IS A PROPRIETARY ANCHOR POST.

POSTS 2 - 8, 8" BLOCKOUTS ACCEPTABLE.

OPTIONAL 25' ANCHOR RAIL AND 25' SYSTEM RAIL ACCEPTABLE.

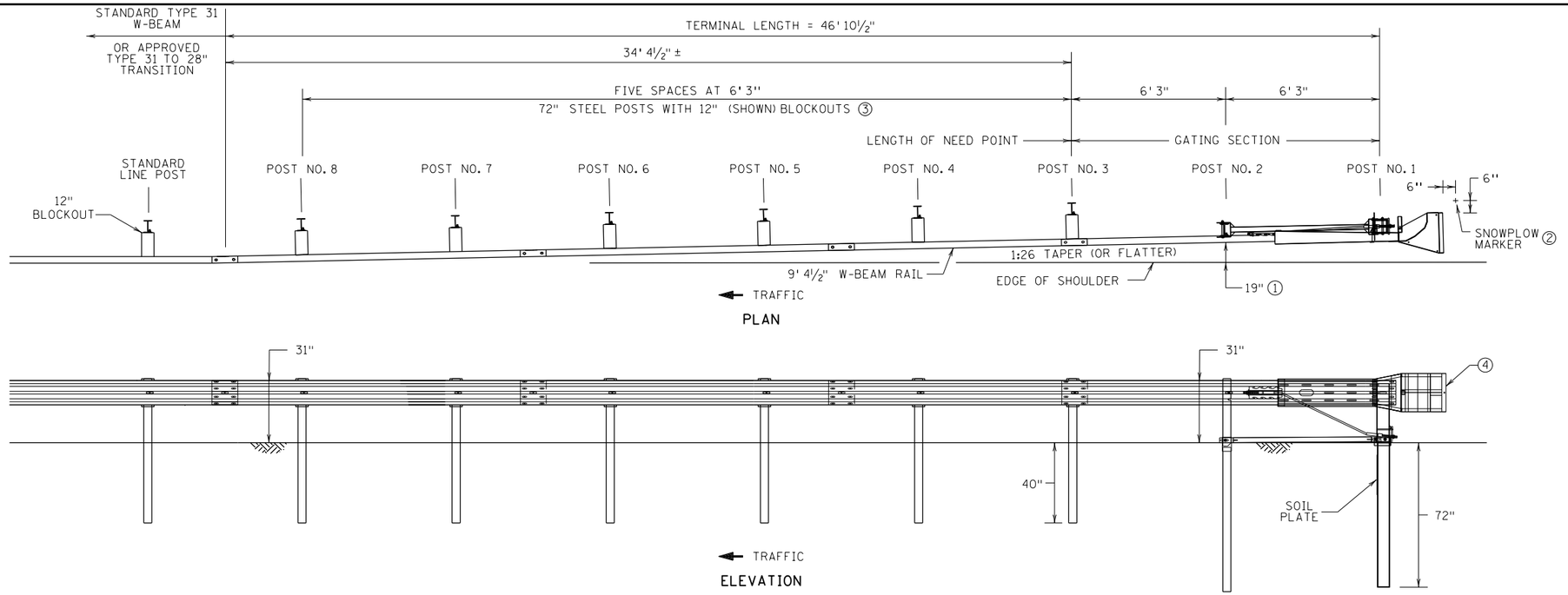
END TERMINAL TO FOLLOW A STRAIGHT TAPER.

PLACE STEEL I-BEAM POST DELINEATORS PER THE APPROVED PRODUCTS LIST ON THE TOP OF THE FIRST FIVE I-BEAM POSTS OF UPSTREAM TERMINAL AND THE LAST FIVE I-BEAM POSTS OF DOWNSTREAM TERMINAL. ATTACH USING ADHESIVE (PER MANUFACTURER RECOMMENDATION). THE RETROREFLECTIVE SHEETING SHALL FACE TRAFFIC AND MATCH THE COLOR OF THE ADJACENT EDGE LINE.

(1) LESSER OFFSET ALLOWED WITH APPROVAL OF THE ENGINEER.

(2) SEE STANDARD PLAN 5-297.601.

(3) 6" X 18" OBJECT MARKER (OM3-R OR OM3-L) PER MNDOT STANDARD SIGNS AND MARKINGS MANUAL. ALTERNATING STRIPES SHALL BE SLOPED DOWN TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS THE OBSTRUCTION.



MSKT
(ROAD SYSTEMS INC.)

NOTES:

THIS IS A PROPRIETARY ITEM AS PER SPEC. 1703.

THESE DETAILS ARE FOR DESIGN GUIDANCE INFORMATION ONLY. CHECK WITH MANUFACTURER FOR CURRENT DETAILS AND INSTALLATION INSTRUCTIONS.

ALL TERMINAL RAIL MUST BE STRAIGHT. CURVED TERMINAL RAIL IS NOT ALLOWED.

ALL BOLTS, NUTS, CABLE ASSEMBLIES, CABLE ANCHORS, AND BEARING PLATES SHALL BE GALVANIZED PER MnDOT SPEC. 3392.

POSTS 1 AND 2 ARE PROPRIETARY HINGED POSTS.

THE RAIL IS DESIGNED TO EXIT THE IMPACT HEAD ON THE BACK SIDE OF THE TERMINAL.

END TERMINAL TO FOLLOW A STRAIGHT TAPER.

PLACE STEEL I-BEAM POST DELINEATORS PER THE APPROVED PRODUCTS LIST ON THE TOP OF THE FIRST FIVE I-BEAM POSTS OF UPSTREAM TERMINAL AND THE LAST FIVE I-BEAM POSTS OF DOWNSTREAM TERMINAL. ATTACH USING ADHESIVE (PER MANUFACTURER RECOMMENDATION). THE RETROREFLECTIVE SHEETING SHALL FACE TRAFFIC AND MATCH THE COLOR OF THE ADJACENT EDGE LINE.

(1) LESSER OFFSET ALLOWED WITH APPROVAL OF THE ENGINEER.

(2) SEE STANDARD PLAN 5-297.601.

(3) 8" BLOCKOUTS ARE ACCEPTABLE.

(4) 18" X 18" OBJECT MARKER (OM3-R OR OM3-L) PER MNDOT STANDARD SIGNS AND MARKINGS MANUAL. ALTERNATING STRIPES SHALL BE SLOPED DOWN TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS THE OBSTRUCTION.

REVISION:

APPROVED: 11-02-2021

NANCY YOO
DESIGN SUPPORT DIRECTOR
STATE DESIGN ENGINEER'S OFFICE

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.612 | **1 OF 1**

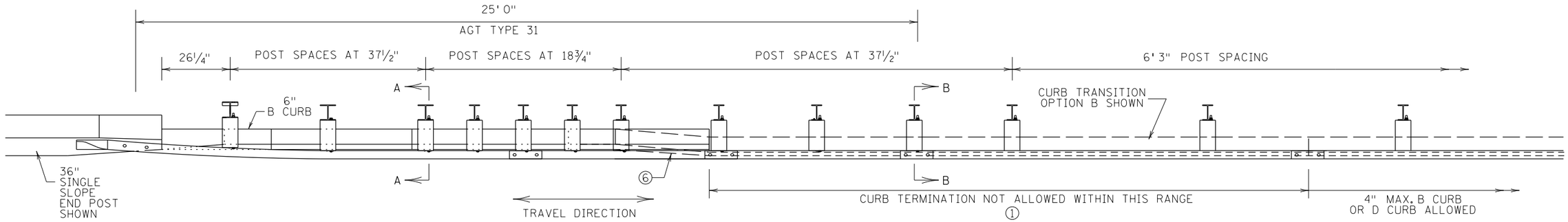
APPROVED: 11-02-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

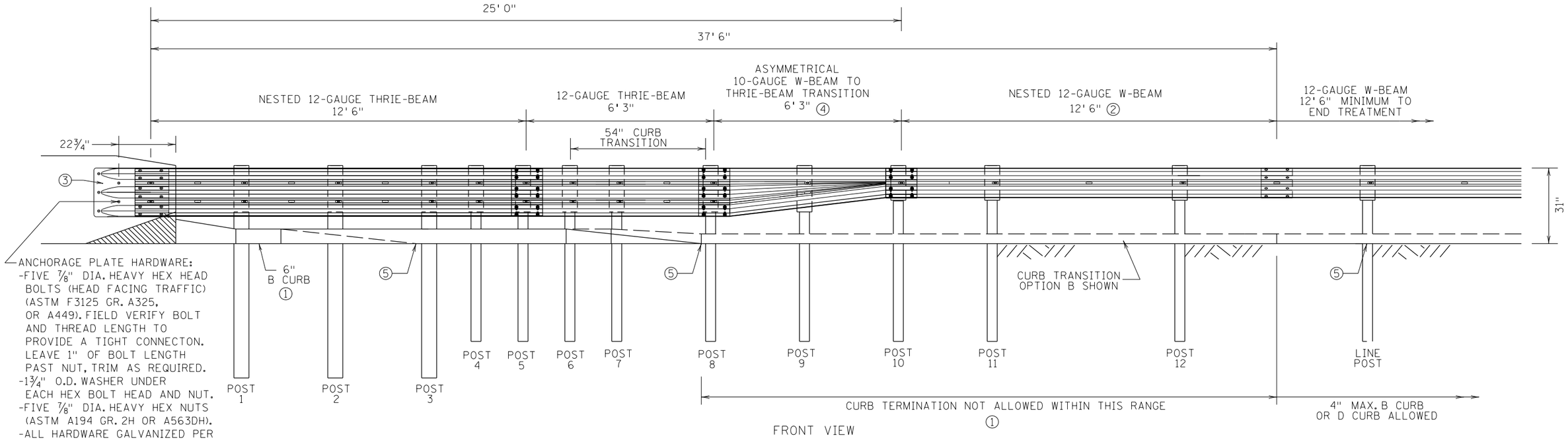
PROPRIETARY END TERMINAL – TANGENT FOR TYPE 31 GUARDRAIL

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 60 OF 359 SHEETS

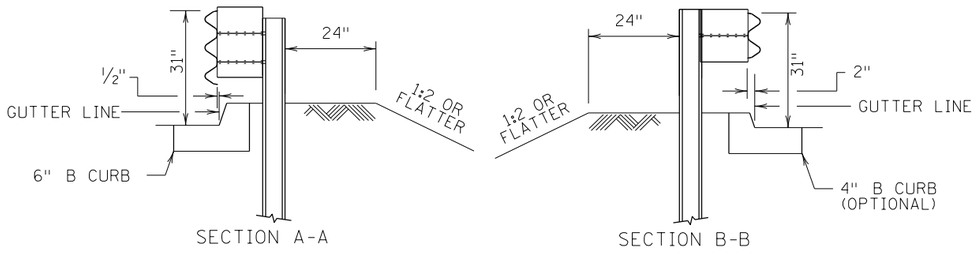
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10/18/2022



PLAN VIEW



FRONT VIEW



SECTION A-A

SECTION B-B

TRANSITION POST/BLOCK SIZING		
POST #	STEEL POST SIZE	BLOCKOUT SIZE
1-3	84" - W6 x 15	6 x 12 x 19"
4-9	72" - W6 x 9	6 x 12 x 19"
10	72" - W6 x 9	6 x 12 x 14¼"

NOTES:

APPROACH GUARDRAIL TRANSITION SHALL BE USED ON THE APPROACH SIDE, AND SHALL BE USED ON THE DEPARTING/TRAILING END IF GUARDRAIL IS NEEDED.

GUARDRAIL BEAM AND HARDWARE PER AASHTO SPEC. M 180.

REFER TO APPROACH PANEL PLANS FOR LOCATION OF E8 JOINT.

① CURB TERMINATION NOT ALLOWED BETWEEN POST 8 AND THE 37' 6" DISTANCE FROM THE RAIL CONNECTION AT THE THRIE-BEAM ANCHORAGE PLATE. SEE CURB DETAILS ON SHEET 2 OF 3.

② NESTED RAIL IS INCIDENTAL.

③ THRIE-BEAM ANCHORAGE PLATE (STANDARD PLATE 8350) IS INCIDENTAL.

④ SEE STANDARD PLATE 8356.

⑤ CURB MAY BE TERMINATED AT THIS LOCATION. SEE CURB DETAILS ON SHEET 2 OF 3.

⑥ GUTTER LINE TAPERS 2½" TO MATCH EXTENDED GUTTER LINE FROM BRIDGE.

REVISION:

APPROVED: 02-09-2021

NANCY YOO
DESIGN SUPPORT DIRECTOR
STATE BRIDGE ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.694 | **1 OF 3**

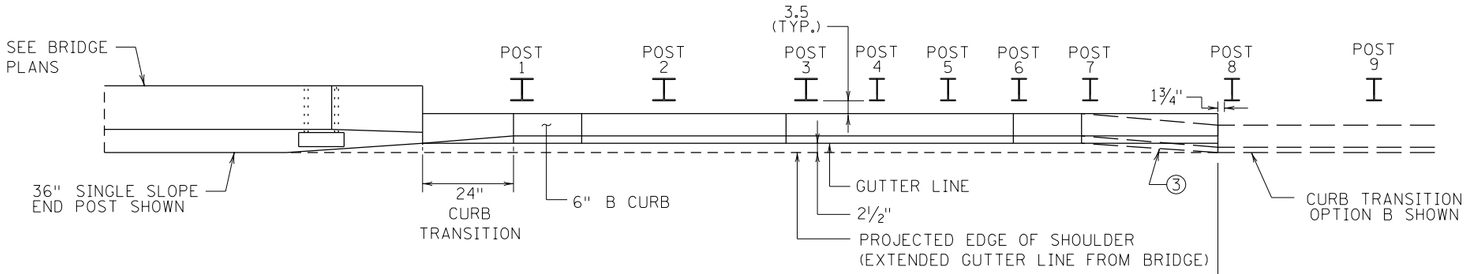
APPROVED: 02-09-2021
REVISED:

APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 AT SINGLE SLOPE END POST

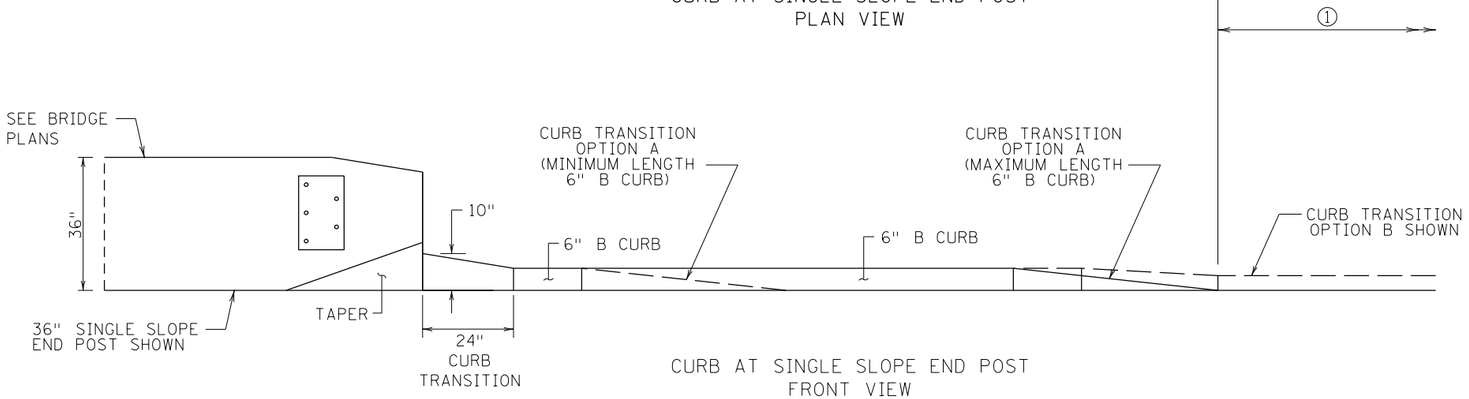
ASSEMBLY DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 61 OF 359 SHEETS

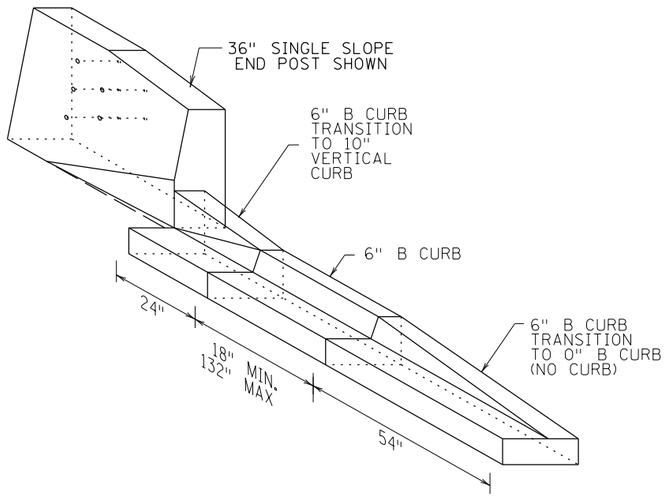
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5/18/2022



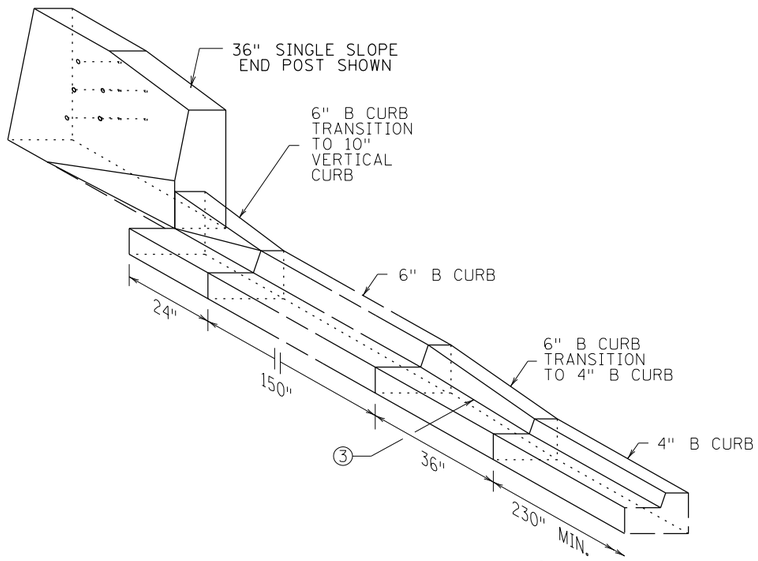
CURB AT SINGLE SLOPE END POST
PLAN VIEW



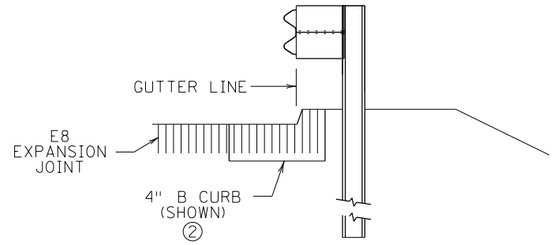
CURB AT SINGLE SLOPE END POST
FRONT VIEW



CURB TRANSITION - OPTION A
6" B CURB ONLY



CURB TRANSITION - OPTION B ①
6" WITH 4" B CURB



EXPANSION JOINT AT CURB

NOTES:

DESIGN B CURB REQUIRED WITH THIS SYSTEM.

DESIGN D CURB ALLOWED BEYOND THE 37'6" DISTANCE FROM THE RAIL CONNECTION AT THE THRIE-BEAM ANCHORAGE PLATE.

REFER TO APPROACH PANEL PLANS FOR LOCATION OF E8 JOINT.

① CURB TERMINATION NOT ALLOWED BETWEEN POST 8 AND THE 37'6" DISTANCE FROM THE RAIL CONNECTION AT THE THRIE-BEAM ANCHORAGE PLATE. SEE SHEET 1 OF 3.

② AT CURB CONTAINING E8 EXPANSION JOINT, PLACE BACK FACE OF GUARDRAIL AT THE GUTTER LINE.

③ GUTTER LINE TAPERS 2½" TO MATCH EXTENDED GUTTER LINE FROM BRIDGE.

REVISION:

APPROVED: 02-09-2021
NANCY TOO
DESIGN SUPPORT DIRECTOR
TRAFFIC ENGINEERING, SIGNALS AND LIGHTING SUPPORT

MINNESOTA DEPARTMENT OF TRANSPORTATION

THOMAS STYRBICKI
STATE DESIGN ENGINEER

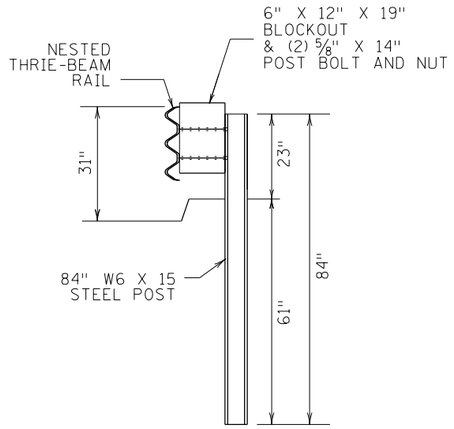
STANDARD PLAN 5-297.694	2 OF 3

APPROVED: 02-09-2021
REVISED:

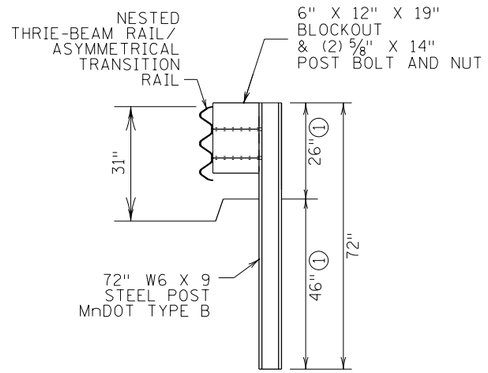
APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 AT SINGLE SLOPE END POST
CURB DETAILS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 62 OF 359 SHEETS

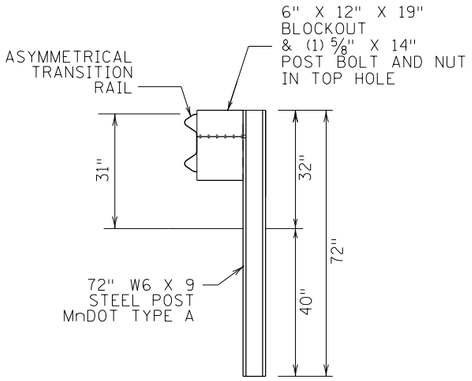
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2022



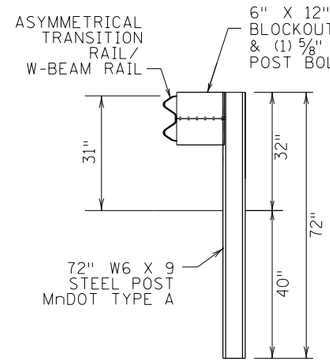
POSTS 1-3 ⑤



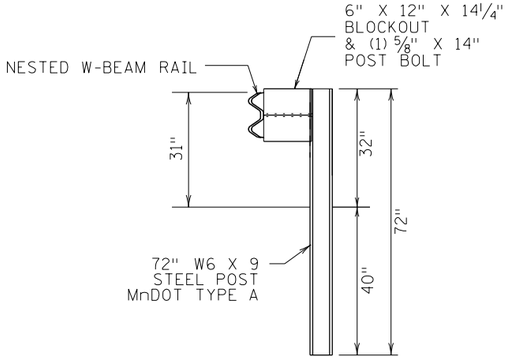
POSTS 4-8



POST 9

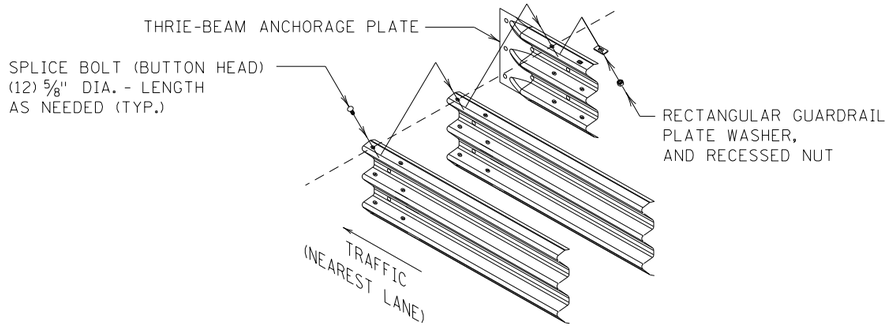


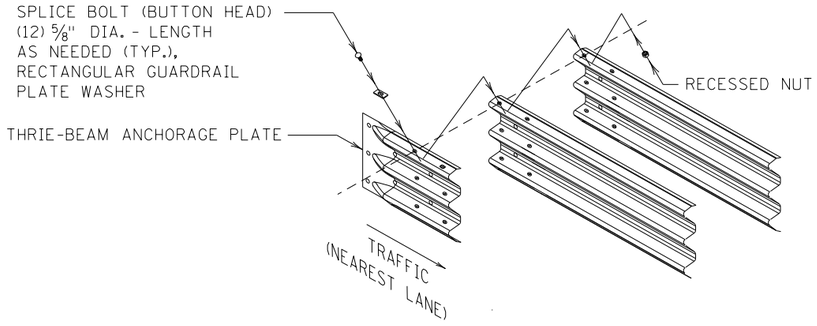
POST 10



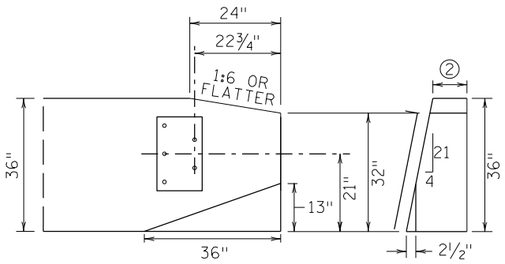
POSTS 11-12

AGT POST COMPONENTS

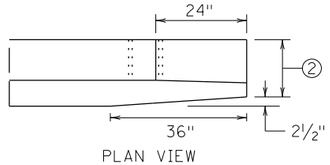




THRIE BEAM RAIL/ANCHORAGE PLATE SPLICE CONNECTION DETAIL ④

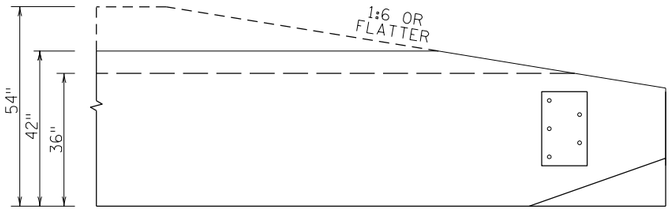


SIDE VIEW END VIEW



PLAN VIEW

SINGLE SLOPE BARRIER ③
(36" HEIGHT SHOWN)



SINGLE SLOPE BARRIER HEIGHT OPTIONS

NOTES:
FOR GUARDRAIL STEEL POSTS, SEE STANDARD PLATE 8361.
FOR GUARDRAIL BLOCKOUTS, SEE STANDARD PLATE 8369.
GUARDRAIL BEAM AND HARDWARE PER AASHTO SPEC. M 180.
① DIMENSIONS APPLICABLE FOR POSTS 4-5. DIMENSIONS VARY AT POSTS 4-6 WHERE CURB HEIGHT TRANSITIONS TO NO HEIGHT.
② SEE BRIDGE PLAN.
③ 36" HEIGHT SHOWN.
④ DRILL THRIE-BEAM ANCHORAGE PLATE AS NEEDED FOR FIT, REPAIR GALVANIZED COATINGS PER ASTM SPEC. A780 AS NEEDED.
⑤ IF NECESSARY POSTS 1 AND 2 MAY BE PLACED NON-VERTICAL IF REQUIRED IN FIELD.

REVISION:

APPROVED: 02-09-2021
NANCY YOO
DESIGN SUPPORT DIRECTOR
STATE BRIDGE ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

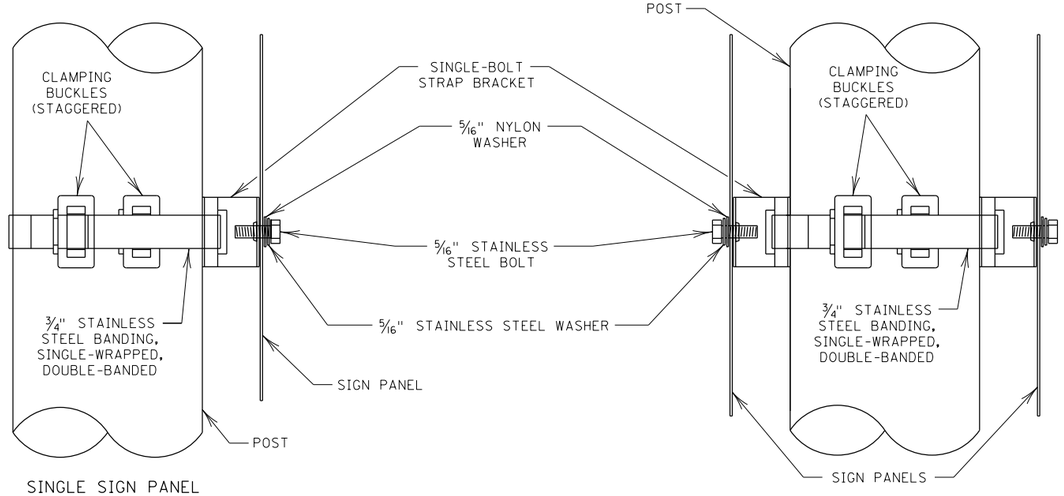
THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.694	3 OF 3
APPROVED: 02-09-2021	
REVISED:	

APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 AT SINGLE SLOPE END POST

MISCELLANEOUS AND COMPONENT DETAILS

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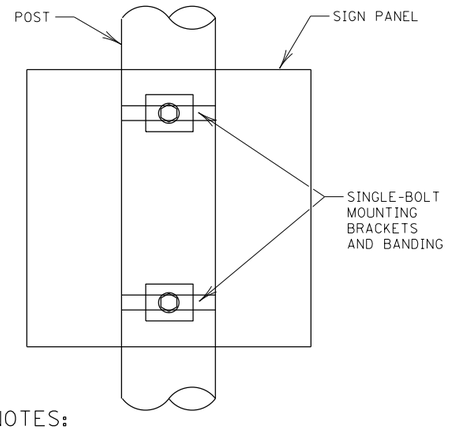


SINGLE SIGN PANEL

BACK TO BACK SIGN PANELS

NON-STIFFENER MOUNTING DETAILS

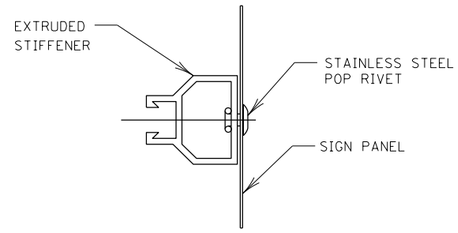
FOR SIGN PANELS UP TO 24" WIDE AND OVERHEAD SIGN IDENTIFICATION PLATES



NOTES:

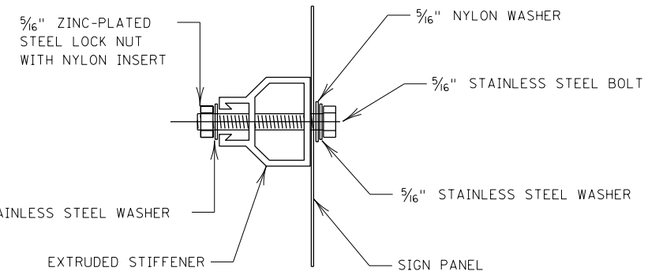
TENSION THE BANDING IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS.

DO NOT MOUNT SIGNS ON BREAKAWAY TRAFFIC SIGNALS AND LUMINAIRE SUPPORTS.



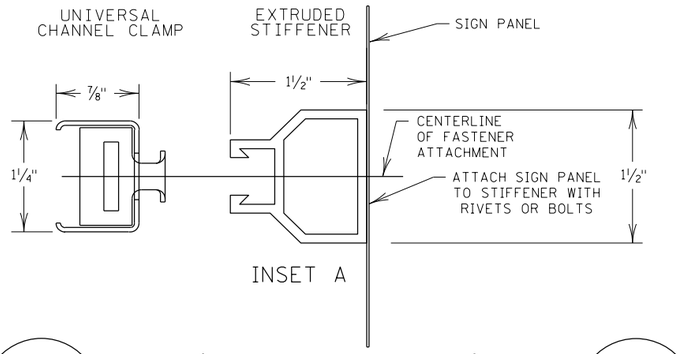
ATTACH 3/16" RIVETS AT 6" INTERVALS.
ATTACH END RIVETS 3" FROM SIGN EDGE.
USE 1/4" RIVETS FOR THE END RIVETS.

RIVET ATTACHMENT

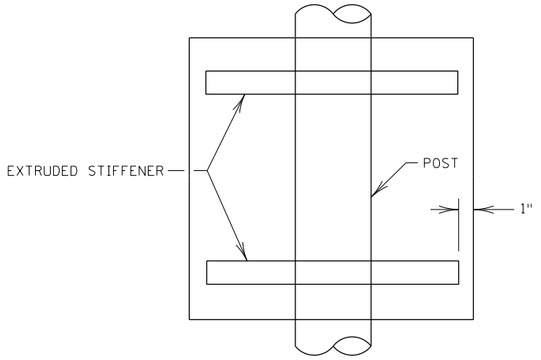


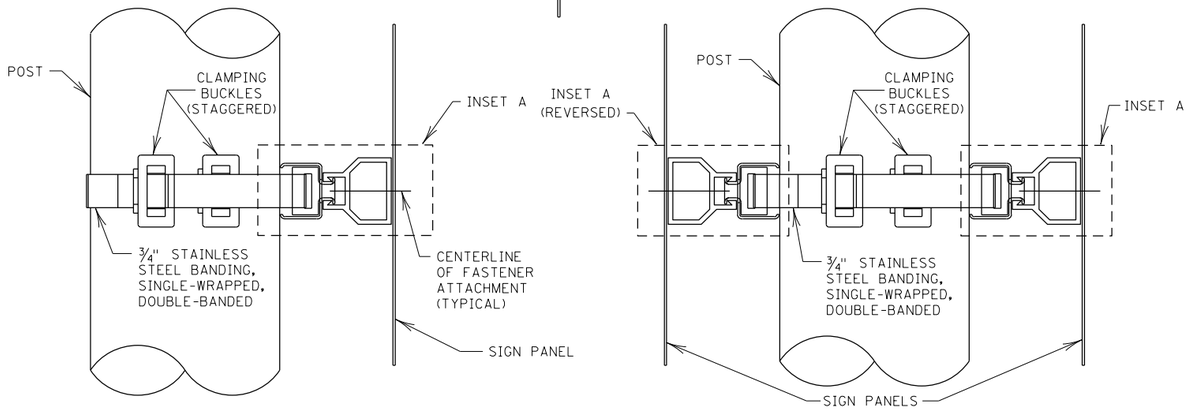
ATTACH AT STANDARD PUNCH CODE LOCATIONS

BOLT ATTACHMENT



INSET A





SINGLE SIGN PANEL

BACK-TO-BACK SIGN PANELS

STIFFENER MOUNTING DETAILS

FOR SIGN PANELS 30" WIDE AND LARGER

NUMBER OF EXTRUDED STIFFENERS REQUIRED

		PANEL WIDTH				
		2'	3'	4'	5'	6'
PANEL HEIGHT	2'	2	2	2	2	3
	3'	2	2	2	2	3
	4'	2	2	2	2	3
	5'	3	3	3	3	3
	6'	3	3	3	4	4
	7'	3	3	3	4	4

PROVIDE VERTICAL SPACING OF NO MORE THAN 36" BETWEEN STIFFENERS.

PROVIDE A VERTICAL DISTANCE OF NO MORE THAN 12" FROM PANEL EDGE TO STIFFENER.

NOTES:

SPACE STIFFENERS IN ACCORDANCE WITH THE PUNCH CODES SHOWN IN THE MnDOT STANDARD SIGNS AND MARKINGS MANUAL.

ATTACH STIFFENERS TO SIGN PANELS USING FASTENERS. PLACE STIFFENERS AT THE VERTICAL LOCATIONS OF THE MOUNTING HOLES FOR EACH SIGN.

FURNISH AND INSTALL HARDWARE COMPATIBLE WITH STIFFENER MOUNTING SYSTEMS.

FURNISH TWO TYPE 201 STAINLESS STEEL 3/4" WIDE BY 1/32" THICK STRAPS, EACH WITH CLAMPING BUCKLES AND INSTALL SEPARATELY WITH A SINGLE WRAP AROUND THE MAST ARM CHORD. PLACE THE SECOND BANDING STRAP OVER THE FIRST STRAP AND STAGGER THE CLAMPING BUCKLES SO THE BUCKLES ARE NOT DIRECTLY OVER ONE ANOTHER.

REVISION:

APPROVED: OCTOBER 16, 2019

BRIAN SORENSON
STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.730	1 OF 1

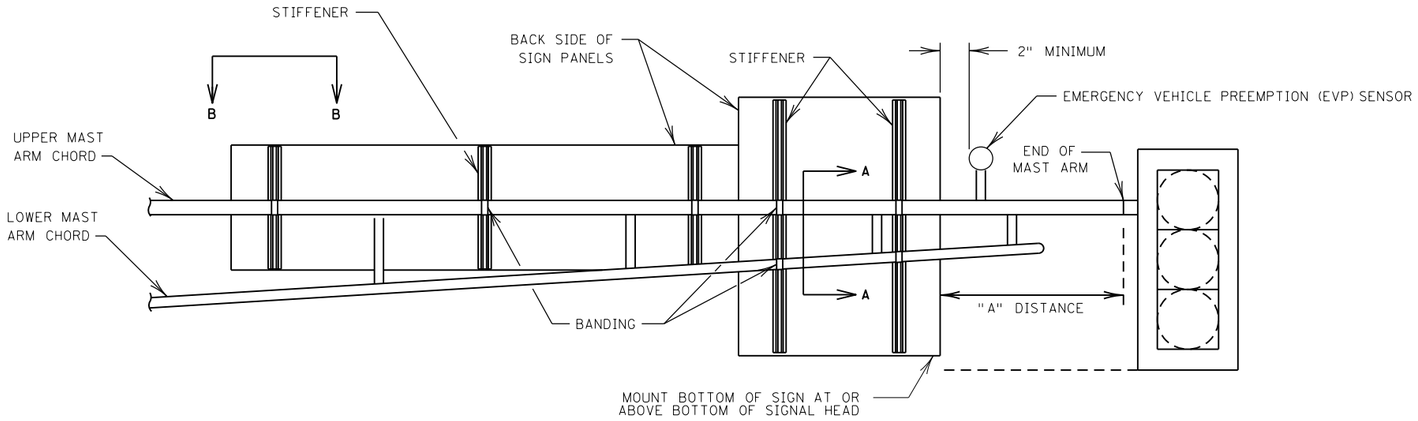
Peter A Harff
PETER A. HARFF
STATE DESIGN ENGINEER

APPROVED: 10-16-2019
REVISED:

SIGN MOUNTING SYSTEMS FOR ROUND SUPPORTS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 64 OF 359 SHEETS

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MAST ARM SIGN MOUNTING

NUMBER OF EXTRUDED STIFFENERS REQUIRED*														
		PANEL WIDTH												
		2'	3'	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
PANEL HEIGHT	2'	2	2	2	3	3	3	4	4	4	5	5	5	5
	3'	2	2	2	3	3	3	4	4	5	5	5	5	5
	4'	2	2	2	3	3	3	4	4	5	5	5	5	6
	5'	2	2	2	3	4	4	5	5	5	5	5	5	6
	6'			2	3	4	4	5	5	5	5	5	5	6
	7'				4	4	5	5	5	5	5	5	5	6

* WHERE SIGN PANEL DIMENSIONS FALL BETWEEN 1' INCREMENTS, USE NEXT HIGHER WIDTH AND/OR HEIGHT DIMENSION.

NOTES:

FURNISH AND INSTALL AT LEAST ONE SPACER FOR EACH SIGN PANEL WHEN PANELS ARE ATTACHED TO THE LOWER MAST ARM CHORD.

AFFIX SIGNS TO UPPER AND LOWER MAST ARM CHORDS WHEN POSSIBLE.

POSITION BOTTOM OF SIGN PANEL AT LEAST 17' ABOVE ROADWAY.

MOUNT SIGN PANELS PLUMB AND SHIM WITH REQUIRED SPACERS AS SHOWN.

PROVIDE SPACING BETWEEN STIFFENERS OF NO MORE THAN 36".

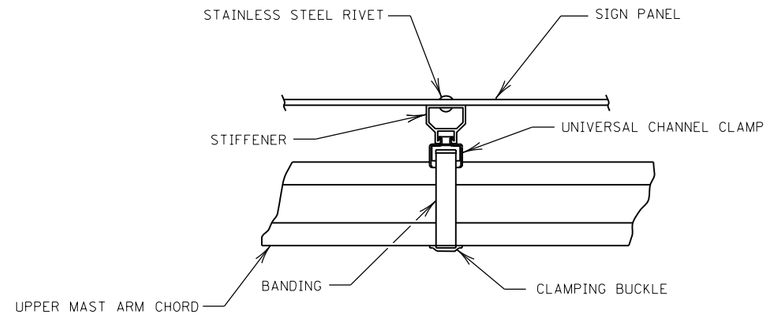
PROVIDE A HORIZONTAL DISTANCE OF NO MORE THAN 12" FROM PANEL EDGE TO STIFFENER.

PROVIDE A VERTICAL DISTANCE OF NO MORE THAN 1" FROM PANEL EDGE TO STIFFENER.

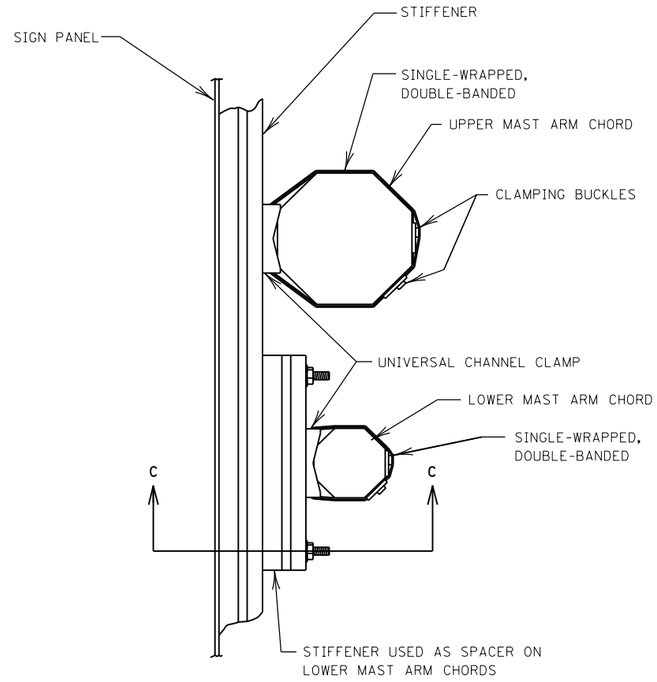
FURNISH AND INSTALL 1/4" STAINLESS STEEL RIVETS 3" FROM THE PANEL EDGE TO ATTACH THE STIFFENERS TO THE SIGN PANELS. FURNISH AND INSTALL 3/16" STAINLESS STEEL RIVETS AT 6" ON CENTER TO ATTACH THE REMAINDER OF THE STIFFENER TO THE SIGN PANEL.

FURNISH TWO TYPE 201 STAINLESS STEEL 3/4" WIDE BY 1/32" THICK STRAPS, EACH WITH CLAMPING BUCKLES AND INSTALL SEPARATELY WITH A SINGLE WRAP AROUND THE MAST ARM CHORD. PLACE THE SECOND BANDING STRAP OVER THE FIRST STRAP AND STAGGER THE CLAMPING BUCKLES SO THE BUCKLES ARE NOT DIRECTLY OVER ONE ANOTHER.

THE "A" DISTANCE IS SHOWN ON THE PLANS. IT IS THE DISTANCE FROM THE END OF THE MAST ARM TO THE EDGE OF EACH SIGN.

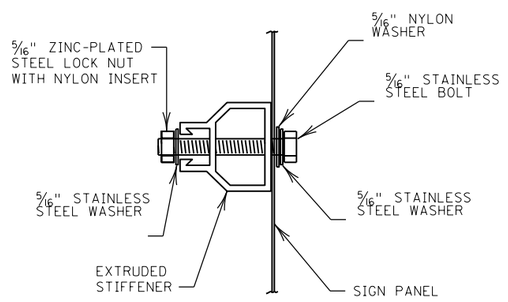


VIEW B-B



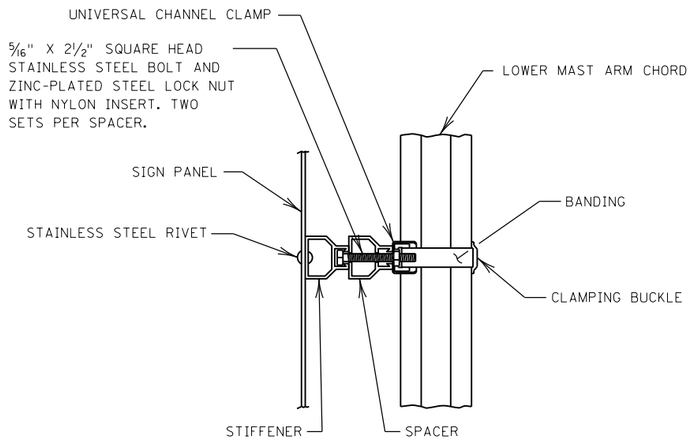
VIEW A-A ①

① SIGN PANELS TALLER THAN 36" MUST BE BANDED TO THE LOWER MAST ARM CHORD AT A MINIMUM OF ONE LOCATION. SIGN PANEL SHALL BE BANDED TO THE LOWER MAST ARM AT A LOCATION THAT WILL PROVIDE THE CLOSEST TO PLUMB ALIGNMENT FOR THE SIGN PANEL.



BOLT ATTACHMENT

ATTACH AT STANDARD PUNCH CODE LOCATIONS



VIEW C-C

REVISION: APRIL 17, 2020

APPROVED: OCTOBER 16, 2019

BRIAN SORENSON
STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

PETER A. HARFF
STATE DESIGN ENGINEER

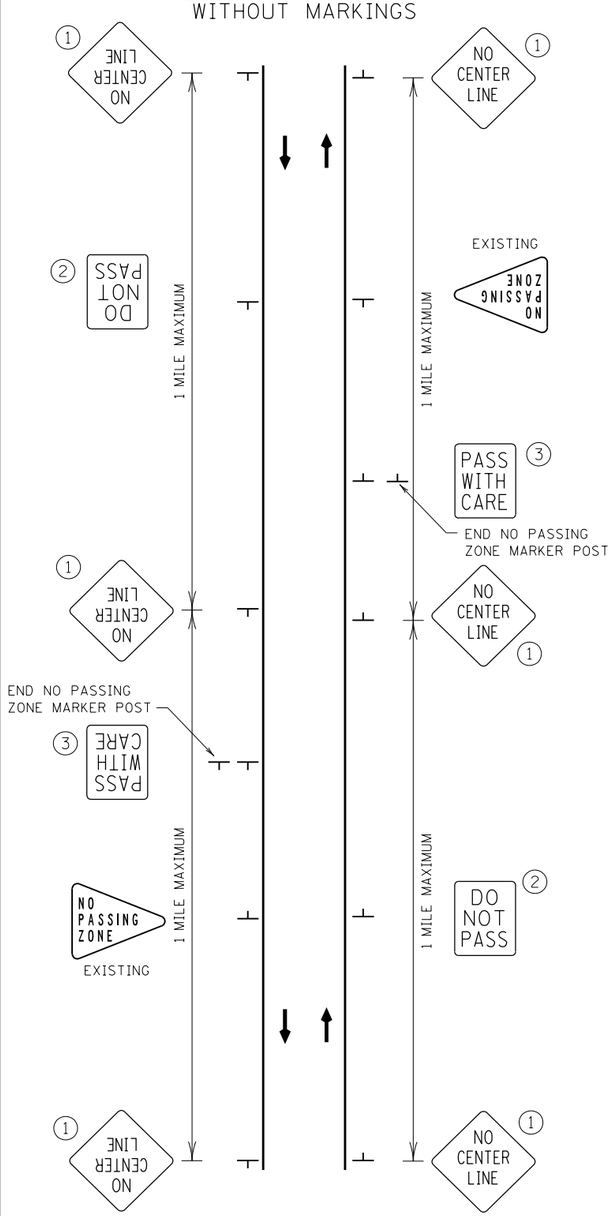
STANDARD PLAN 5-297.731	1 OF 1
APPROVED: 10-16-2019 REVISED: 4-17-2020	

SIGN MOUNTING DETAILS FOR SIGNAL MAST ARMS

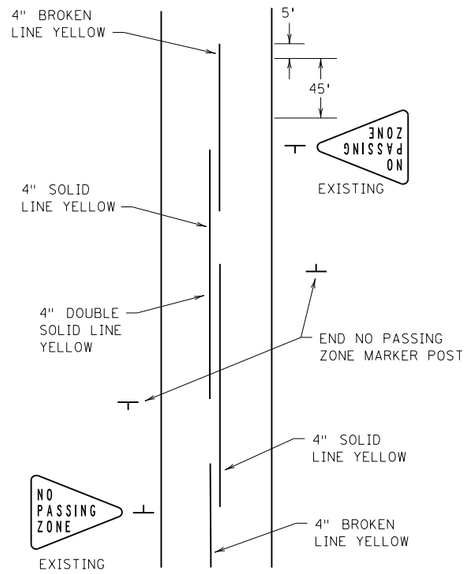
SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 65 OF 359 SHEETS

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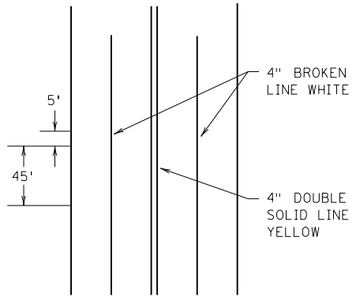
TWO-LANE, TWO-WAY LESS THAN 400 ADT WITHOUT MARKINGS



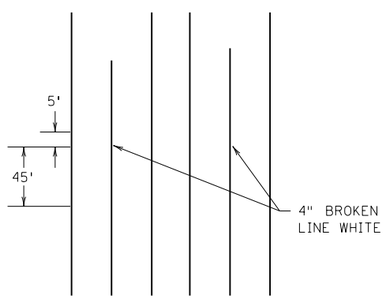
TWO-LANE, TWO-WAY



MULTI-LANE, UNDIVIDED



MULTI-LANE, DIVIDED



GENERAL NOTES:

SEE MnDOT SPEC. 2580 (INTERIM PAVEMENT MARKING).

DO NOT OPEN ANY ROADWAY SEGMENT TO TRAFFIC UNLESS THE FOLLOWING MARKINGS (INTERIM OR PERMANENT) ARE INPLACE: CENTERLINE MARKINGS (INCLUDING NO PASSING ZONES), FLUSH MEDIANS (EXCLUDING CROSSHATCHING), AND LANE LINE (INCLUDING TURN AND AUXILIARY LANE LINES). THIS REQUIREMENT IS WAIVED FOR TANGENT ROAD SEGMENTS LESS THAN 350' IN LENGTH AND CURVED ROAD SEGMENTS WITH DEGREES OF CURVE GREATER THAN 6 DEGREES FOR LESS THAN 50' IN LENGTH.

PLACE INTERIM BROKEN LINE PAVEMENT MARKINGS AT THE SAME CYCLE LENGTH AS FINAL PAVEMENT MARKINGS WITH A MINIMUM LENGTH OF 5 FEET; IF FINAL PAVEMENT MARKING PLAN IS NOT PROVIDED, THE CYCLE LENGTH SHALL BE 50'. PLACE INTERIM DOTTED LINE PAVEMENT MARKINGS AT THE SAME CYCLE LENGTH AND LINE LENGTH AS SHOWN IN THE PLAN; IF FINAL PAVEMENT MARKING PLAN IS NOT PROVIDED, THE CYCLE LENGTH SHALL BE 15' WITH A LINE LENGTH OF 3'.

FOR NO PASSING ZONE LOCATIONS, REFER TO THE SIGNING OR PAVEMENT MARKING PLAN; IF NEITHER IS PROVIDED, FOLLOW INPLACE NO PASSING ZONES.

WHEN PERMANENT PAVEMENT MARKINGS ARE TO BE MULTI-COMPONENT LIQUID AND PAINT IS USED FOR THE INTERIM MARKINGS, PLACE A 10 MIL THICK LAYER OF PAINT. REMOVAL OF THE 10 MIL LAYER OF PAINT IS NOT REQUIRED PRIOR TO PLACING THE MULTI-COMPONENT LIQUID. IF THE LAYER OF PAINT IS GREATER THAN 10 MIL, REMOVE THE PAINT PRIOR TO PLACING THE MULTI-COMPONENT LIQUID.

PLACE INTERIM MARKINGS ON THE FINAL PERMANENT PAVEMENT SURFACE SUCH THAT THEY WILL BE FULLY COVERED BY THE PERMANENT PAVEMENT MARKINGS.

INTERIM PAVEMENT MARKINGS SHOULD NOT BE LEFT INPLACE FOR MORE THAN 14 CALENDAR DAYS UNLESS THEY MEET THE REQUIREMENTS OF PERMANENT OR TEMPORARY MARKINGS.

USING SIGNING IN LIEU OF INTERIM PAVEMENT MARKINGS ON TWO-LANE, TWO-WAY ROADWAYS

ON ROADS WITH AN AVERAGE DAILY TRAFFIC (ADT) OF LESS THAN 400 VEHICLES, THE SIGNS AS SHOWN MAY BE USED IN LIEU OF PAVEMENT MARKINGS FOR UP TO 14 CALENDAR DAYS OR AS DIRECTED BY THE ENGINEER.

(1) PLACE A "NO CENTER LINE" SIGN (W8-12, BLACK ON ORANGE) FOR EACH DIRECTION OF TRAVEL. PLACE ADDITIONAL SIGNS AT MAJOR INTERSECTIONS OR ONE MILE INCREMENTS, WHICHEVER IS LESS.

(2) IF NOT ALREADY INPLACE, PLACE A "DO NOT PASS" SIGN (R4-1) OPPOSITE OF EACH INPLACE "NO PASSING ZONE" SIGN (W14-3).

(3) PLACE A "PASS WITH CARE" SIGN (R4-2) AT THE END OF EACH NO PASSING ZONE, ADJACENT TO THE END OF NO PASSING ZONE MARKER POST.

USING TEMPORARY RAISED PAVEMENT MARKERS (TRPMS) AS INTERIM PAVEMENT MARKING

WHEN USING TRPMS AS INTERIM PAVEMENT MARKINGS, FOLLOW THE REQUIREMENTS BELOW UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

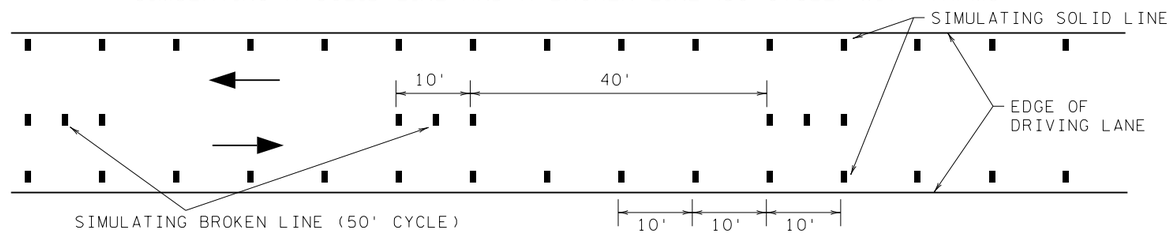
USE DOUBLE-SIDED TRPMS ON TWO-LANE, TWO-WAY ROADS.

BROKEN LINE: USE 3 TRPMS PER 10' BROKEN LINE, 5' SPACING WITH A 40' GAP.

SOLID LINE: USE CONTINUOUS TRPMS; 10' SPACING FOR TANGENTS AND CURVES UNDER 6 DEGREES; 5' SPACING FOR CURVES ≥6 DEGREES, GRADES >5 PERCENT, OR CONCRETE PAVEMENTS.

DOUBLE SOLID LINE: USE TWO CONTINUOUS TRPMS 4" APART, 10' SPACING ON TANGENTS AND CURVES UNDER 6 DEGREES; 5' SPACING FOR CURVES ≥6 DEGREES, GRADES >5 PERCENT, OR CONCRETE PAVEMENTS.

SIMULATING A SOLID LINE AND A BROKEN LINE (50' CYCLE) WITH TRPMS



REVISION:

APPROVED: OCTOBER 10, 2019

BRIAN SORENSON
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MINNESOTA DEPARTMENT OF TRANSPORTATION

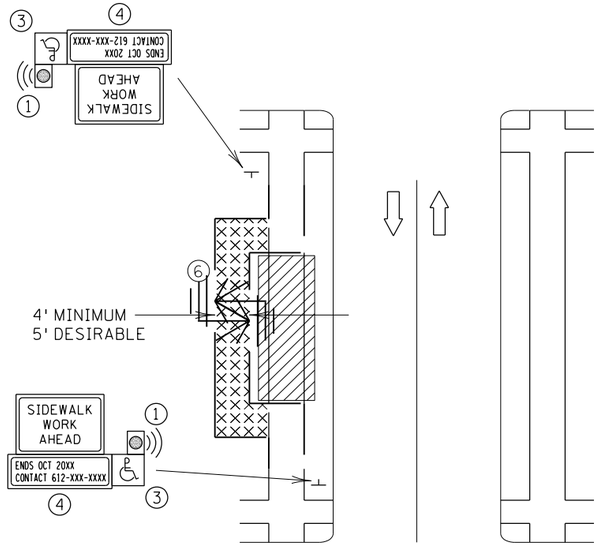
STANDARD PLAN 5-297.801	1 OF 1
APPROVED: 10-10-2019	
REVISED:	

PETER A. HARFF
STATE DESIGN ENGINEER

INTERIM PAVEMENT MARKINGS AND SIGNING

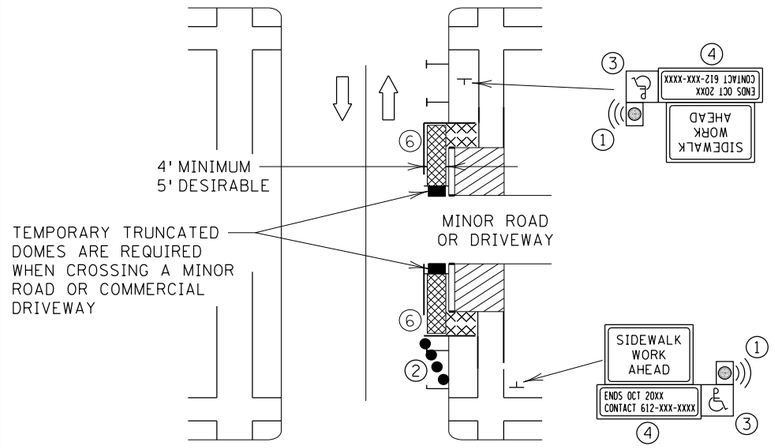
SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 66 OF 359 SHEETS

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7/18/2022 bmi



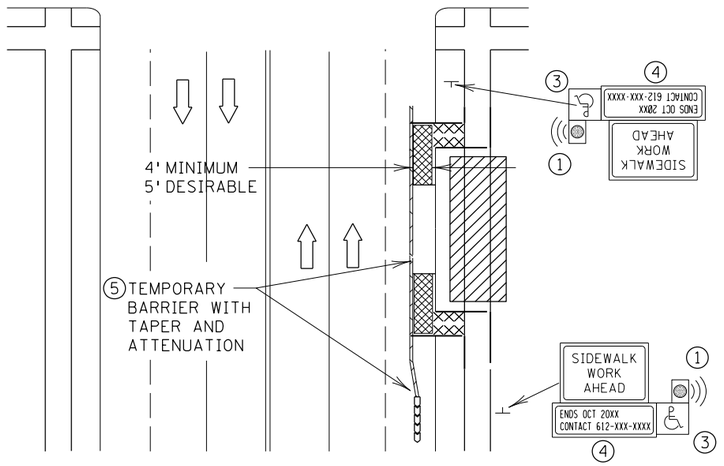
BYPASS TYPE A

BYPASS ON ADJACENT AVAILABLE RIGHT OF WAY



BYPASS TYPE B

SIDEWALK BYPASS USING PARKING OR SHOULDER ON LOW-SPEED ROADWAY



BYPASS TYPE C

SIDEWALK BYPASS USING SHOULDER OR PARKING LANE ON A MULTI-LANE OR HIGH-SPEED ROADWAY

NOTES:

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES. THE ALTERNATE PEDESTRIAN ROUTE (APR) MUST REMAIN OPEN AT ALL TIMES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY TO PROVIDE AN APR AT ALL TIMES FOR ROADWAYS WITH NO AVAILABLE DETOURS. PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR.

PROVIDE A FIRM, STABLE, FREE-DRAINING, NON-SLIP, TEMPORARY WALKWAY SURFACE REGARDLESS OF WEATHER CONDITIONS. SUPPORT THE TEMPORARY WALKWAY SURFACE WITH A SOLID BASE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND. THE TEMPORARY WALKWAY SURFACE WILL ALLOW NORMAL USAGE OF WHEELCHAIRS, WALKERS, STROLLERS, AND OTHER MOBILITY DEVICES. CONCRETE, BITUMINOUS, STEEL, RUBBER, WOOD (¾" OR THICKER), AND PLASTIC ARE ACCEPTABLE SURFACE MATERIALS FOR THE TEMPORARY WALKWAY SURFACE. GRAVEL, MILLINGS, AND OTHER UNEVEN SURFACES ARE NOT ACCEPTABLE SURFACE MATERIALS. IF NEEDED, PROVIDE SOIL STABILIZATION TO PREVENT EROSION AROUND TEMPORARY SURFACES. IF NEEDED, PROVIDE SOIL STABILIZATION TO PREVENT EROSION AROUND TEMPORARY SURFACES.

IF A 60" PEDESTRIAN WALKWAY WIDTH ISN'T PROVIDED FOR THE ROUTE, THEN A 60" BY 60" PASSING SPACE IS REQUIRED EVERY 200'. THE MINIMUM WIDTH OF THE WALKWAY IS 48".

COVER OR DEACTIVATE ANY PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS.

POST-MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7' MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SIDEWALK SURFACE. SHARED-USE PATH SHALL HAVE 8' MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SHARED USE PATH SURFACE.

APR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS.

ANY PORTABLE SIGN OR BARRICADE PLACED OR STORED IN A PEDESTRIAN WALKWAY THAT COULD POSE A HAZARD TO A VISUALLY-IMPAIRED PEDESTRIAN SHALL HAVE A DETECTABLE EDGE TO GUIDE THE PEDESTRIAN AROUND THE HAZARD. FOR ADDITIONAL GUIDANCE, SEE THE "DETECTABLE EDGE FOR SIGN ON PORTABLE STAND" DETAIL ON STADARD PLAN 5-297.813.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

2. PROVIDE THE APR ON THE SAME SIDE OF THE ROADWAY AS THE DISRUPTED ROUTE UTILIZING BYPASSES.

3. WHERE NOT FEASIBLE TO PROVIDE A SAME-SIDE APR, PROVIDE AN APR DETOUR ON THE OTHER SIDE OF THE ROADWAY.

   WHERE NOT FEASIBLE TO PROVIDE AN APR ON EITHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS.

(1) CONSIDER PROVIDING AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE FOR PEDESTRIANS WITH VISUAL DISABILITIES.

(2) RECOMMENDED TAPER WHEN THE CLOSED AREA WAS PREVIOUSLY USED AS AN INTERMITTENT TRAFFIC LANE OR BYPASS LANE IS 25' LONG USING FIVE EQUALLY-SPACED CHANNELIZING DEVICES.

(3) FOR FULLY-ACCESSIBLE WALKWAYS THROUGH WORKZONES, CONSIDER DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.

(4) INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24/7 QUESTIONS OR REPORTING HAZARDS ON SIGNS FOR TEMPORARY PEDESTRIAN DETOURS.

(5) SEE THE MOST CURRENT EDTION OF THE MNDOT TEMPORARY BARRIER GUIDANCE MANUAL FOR GUIDANCE ON PLACEMENT AND USAGE OF TEMPORARY BARRIER.

(6) PROVIDE SOIL STABILIZATION AROUND TEMPORARY SURFACES TO PREVENT EROSION, IF NEEDED.

LEGEND

- SIGN
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TEMPORARY BARRIER
- DIRECTION OF TRAFFIC
- CHANNELIZER
- AUDIBLE MESSAGE DEVICE (AMD)
- TEMPORARY CURB RAMP WITH DETECTABLE EDGES
- TEMPORARY WALKWAY SURFACE

REVISION:

APPROVED: 03-18-2021

BRIAN SORENSON
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MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.811 | **1 OF 2**

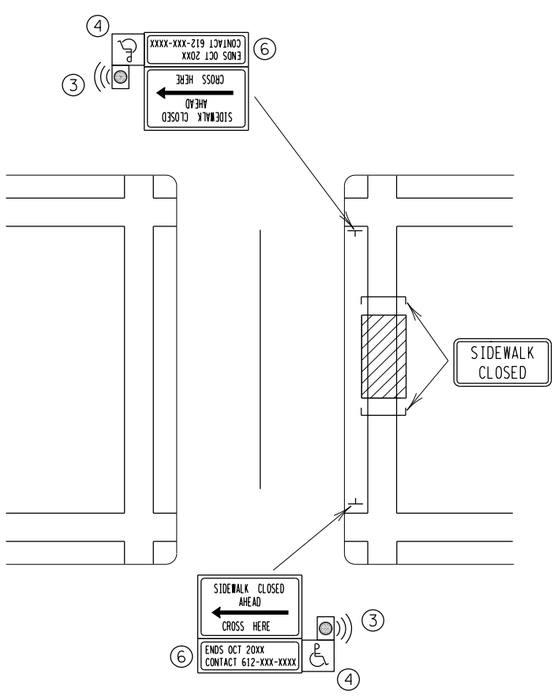
APPROVED: 03-18-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

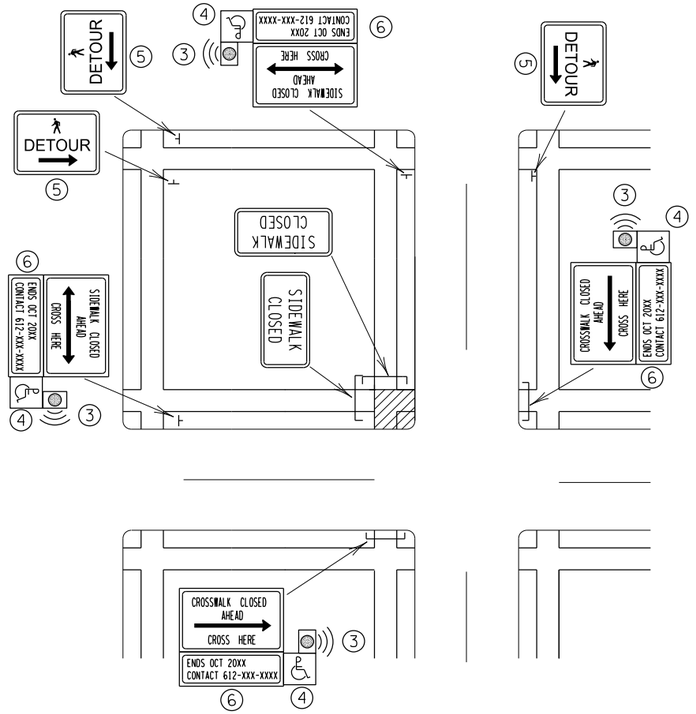
ALTERNATE PEDESTRIAN ROUTE (APR) LAYOUTS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 67 OF 359 SHEETS

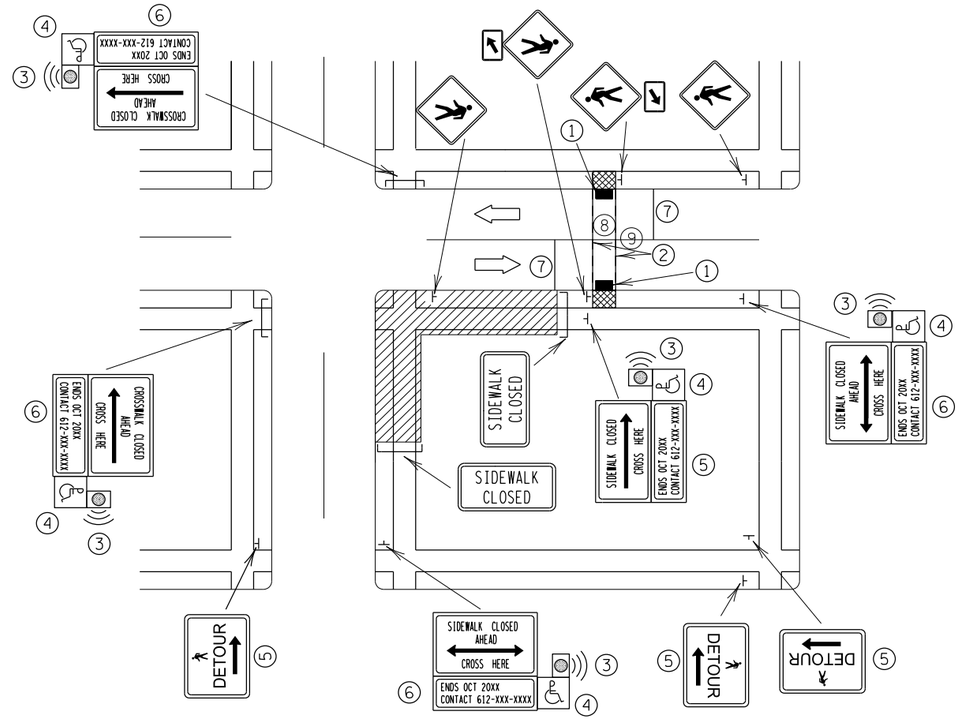
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7/18/2022



OTHER SIDE OF ROADWAY DETOUR
FOR MID-BLOCK CLOSURE



ONE QUADRANT CLOSED



OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS
FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK

NOTES:

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES. THE MINIMUM TEMPORARY WALKWAY WIDTH SHOULD BE THE WIDTH OF THE EXISTING FACILITY. IF THE EXISTING FACILITY HAS A WIDTH GREATER THAN 60", THE WIDTH OF THE TEMPORARY FACILITY MAY BE 60". IF THE WIDTH OF THE DETOUR IS LESS THAN 60", A 60"-WIDE PASSING SPACE IS REQUIRED EVERY 200'.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER TRAILBLAZING SIGNS OR DEVICES MAY BE NEEDED FOR ADEQUATE ROUTING. STAGE WORK AS NECESSARY TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. PROVIDE A FIRM, STABLE, FREE-DRAINING, NON-SLIP, TEMPORARY WALKWAY SURFACE REGARDLESS OF WEATHER CONDITIONS. SUPPORT THE TEMPORARY WALKWAY SURFACE WITH A SOLID BASE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND. THE TEMPORARY WALKWAY SURFACE WILL ALLOW NORMAL USAGE OF WHEELCHAIRS, WALKERS, STROLLERS, AND OTHER MOBILITY DEVICES. CONCRETE, BITUMINOUS, STEEL, RUBBER, WOOD (3/4" OR THICKER), AND PLASTIC ARE ACCEPTABLE SURFACE MATERIALS FOR THE TEMPORARY WALKWAY SURFACE. GRAVEL, MILLINGS, OR OTHER UNEVEN SURFACES ARE NOT ACCEPTABLE SURFACE MATERIALS. IF NEEDED, PROVIDE SOIL STABILIZATION TO PREVENT EROSION AROUND TEMPORARY SURFACES.

COVER OR DEACTIVATE ANY PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS.

APR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS.

POST-MOUNTED SIGNS ADJACENT TO SIDEWALKS SHALL HAVE 7' MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SIDEWALK SURFACE. SHARED-USE PATHS SHALL HAVE 8' MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SHARED-USE PATH SURFACE.

ANY PORTABLE SIGN OR BARRICADE PLACED OR STORED IN A PEDESTRIAN WALKWAY THAT COULD BE A HAZARD TO A VISUALLY-IMPAIRED PEDESTRIAN SHALL HAVE A DETECTABLE EDGE TO GUIDE THE PEDESTRIAN AROUND THE HAZARD. FOR ADDITIONAL GUIDANCE SEE THE "TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) DEVICES" STANDARD PLAN, "DETECTABLE EDGE FOR SIGN ON PORTABLE STAND" DETAIL.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE ROADWAY AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME-SIDE APR, PROVIDE AN APR DETOUR ON THE OTHER SIDE OF THE ROADWAY.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON EITHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS.

(1) TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.

(2) TEMPORARY PAVEMENT MARKINGS FOR CROSSWALKS MAY USE CROSSWALK BLOCKS, TWO TRANSVERSE LINES OR TWO STRIPS OF 18" PREFORMED MARKING MATERIAL TO FORM 36" WIDE CROSSWALK BLOCKS.

(3) PROVIDE AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE FOR PEDESTRIANS WITH VISUAL DISABILITIES.

(4) FOR FULLY ACCESSIBLE WALKWAYS THROUGH WORKZONES, CONSIDER DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.

(5) USE PEDESTRIAN DETOUR TRAILBLAZING SIGNS IF THE PEDESTRIAN DETOUR IS NOT LOCATED ACROSS THE ROADWAY FROM THE SIDEWALK CLOSURE.

(6) TYPICAL SIGN MESSAGE FOR AN ALTERNATE PEDESTRIAN ROUTE SHOULD INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24/7 QUESTIONS OR REPORTING HAZARDS. TYPICAL INFORMATION INCLUDED IN AN AUDIBLE MESSAGE CAN BE FOUND IN "TPAR - AUDIBLE MESSAGE CONTENT GUIDELINES" AVAILABLE ON THE MNDOT TRAFFIC ENGINEERING WEBSITE ON THE PEDESTRIAN ACCOMMODATIONS THROUGH WORK ZONES WEB PAGE. ADDITIONALLY, A SUMMARY OF THE MESSAGE CONTENT GUIDELINES CAN BE FOUND WITHIN THE PEDESTRIAN ACCOMMODATIONS THROUGH WORK ZONES DESIGN GUIDANCE DOCUMENT.

(7) LOCATE STOP BAR 20' TO 50' BEFORE THE CROSSWALK. RESTRICT PARKING BETWEEN THE STOP BAR AND THE CROSSWALK. ON TWO-WAY ROADWAYS, RESTRICT PARKING BOTH BEFORE AND AFTER THE CROSSWALK FOR BOTH DIRECTIONS.

(8) CONSIDER LIGHTING AT MID-BLOCK CROSSINGS IN ORDER TO ILLUMINATE PEDESTRIANS, IF NOT ALREADY LIT.

(9) CONSIDER THE ADDITION OF R1-6a SIGNS AS MOTORISTS ARE NOT EXPECTING MID-BLOCK CROSSING.

LEGEND

- SIGN
- WORK AREA
- SIDEWALK BARRICADE
- DIRECTION OF TRAFFIC
- AUDIBLE MESSAGE DEVICE (AMD)
- TEMPORARY CURB RAMP WITH DETECTABLE EDGES



R1-6a

REVISION:

APPROVED: 03-18-2021

BRIAN SORENSON
STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.811 | **2 OF 2**

APPROVED: 03-18-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

ALTERNATE PEDESTRIAN ROUTE (APR) LAYOUTS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 68 OF 359 SHEETS

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7/18/2022

NOTES;

TPAR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS.

RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4" INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27" ABOVE THE WALKWAY SURFACE.

USE CRASHWORTHY TEMPORARY BARRIERS WHEN USED AS A PEDESTRIAN CHANNELIZERS.

PLACE SIDEWALK BARRICADES ACROSS THE ENTIRE WIDTH OF THE WALKWAYSURFACE, WHEN USED.

USE INTERLOCKING DEVICES TO CHANNELIZE PEDESTRIAN FLOW TO PREVENT GAPS THAT COULD ALLOW PEDESTRIANS TO STRAY FROM THE CHANNELIZED PATH.

① PROVIDE DETECTABLE EDGE TO ANY TRIPPING HAZARD IN THE WALKWAY. LOCATE BALLAST BEHIND THE DETECTABLE EDGE OR INTEGRAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHOULD NOT EXTEND INTO THE 48" MINIMUM WALKWAY CLEAR SPACE. ANY SUPPORT THAT EXTENDS INTO THE WALKWAY SHALL NOT EXCEED ½" HEIGHT ABOVE THE WALKWAY SURFACE; IF GREATER THAN ¼", BEVEL AS SHOWN IN THE TRIP HAZARD DETAIL.

② PROVIDE CONTINUOUS DETECTABLE EDGES EXTENDING AT LEAST 6" ABOVE THE WALKWAY SURFACE. MARK DETECTABLE EDGES WITH A COLOR THAT CONTRASTS WITH THE WALKWAY SURFACE. PLACE THE DETECTABLE EDGE AROUND ANY PORTABLE SIGN STAND IN THE WALKWAY AREA WHERE THE SIGN POSES A HAZARD TO A VISUALLY-IMPAIRED PEDESTRIAN.

③ DEVICES AND DETECTABLE EDGES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2" IS ALLOWED FOR DRAINAGE PURPOSES.

④ USE HAND AND GUIDE RAILS WHEN REQUIRED. INSTALL TOP RAIL OR TOP SURFACE IN A VERTICAL PLANE PERPENDICULAR TO THE WALKWAY, ABOVE THE DETECTABLE EDGE. PROVIDE CONTINUOUS RAIL AT A HEIGHT OF 34" TO 38" ABOVE THE WALKWAY SURFACE. USE RAIL SUPPORTS THAT MINIMIZE CONTACT WITH PEDESTRIAN'S HANDS AND FINGERS. SEE "PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) 2005" FOR ADDITIONAL GUIDANCE ON USE OF HAND AND GUIDE RAILS.

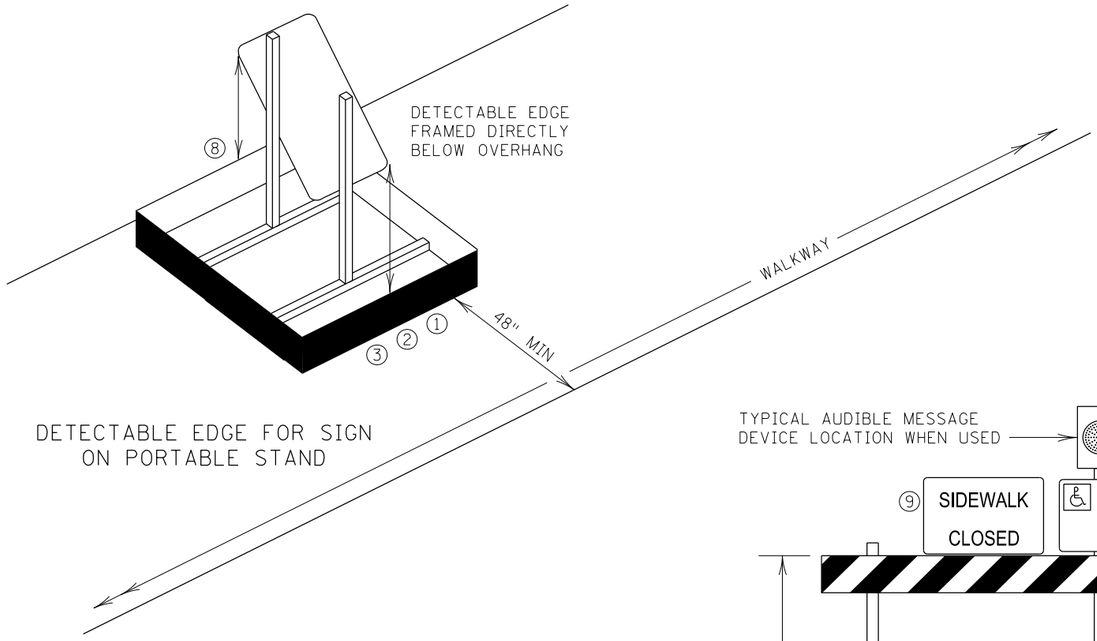
⑤ USE DEVICES FREE OF SHARP OR ROUGH EDGES, AND USE ROUNDED FASTENERS (BOLTS) TO PREVENT HARM TO A PEDESTRIAN'S HANDS, ARMS, AND CLOTHING.

⑥ REGARDLESS OF WEATHER CONDITIONS PROVIDE FIRM, STABLE, FREE-DRAINING, AND NON-SLIP TEMPORARY WALKWAY SURFACES. TEMPORARY WALKWAY SURFACES SHALL ALLOW NORMAL USAGE OF WHEELCHAIRS, WALKERS, STROLLERS, OR OTHER MOBILITY DEVICES. CONCRETE, BITUMINOUS, STEEL, RUBBER, WOOD (¾" OR THICKER), AND PLASTIC ARE ACCEPTABLE SURFACE MATERIALS FOR A TEMPORARY WALKWAY SURFACE. GRAVEL, MILLINGS, AND OTHER UNEVEN SURFACES ARE NOT ACCEPTABLE SURFACE MATERIALS.

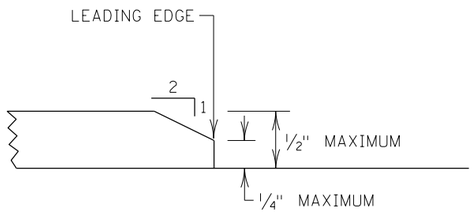
⑦ PROVIDE 32" HIGH OR GREATER LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS.

⑧ AN EDGE OF THE FRAMING MAY BE REMOVED IF IT IS NOT NEEDED FOR PEDESTRIAN GUIDANCE. STABILITY OF THE DETECTABLE EDGE SHOULD BE MAINTAINED.

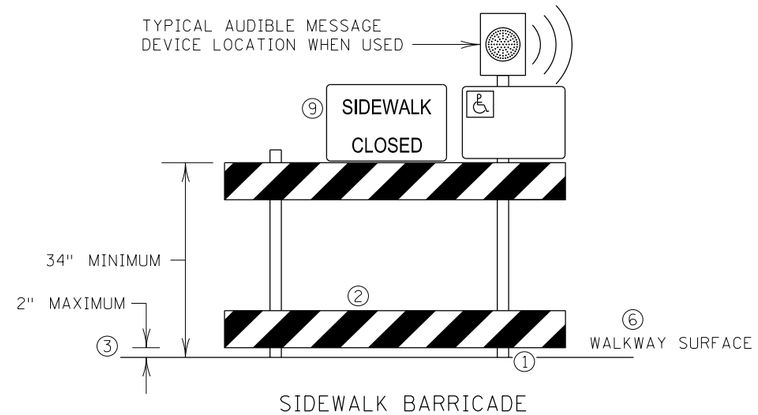
⑨ TYPICAL. SEE SIGNING PLAN FOR DETAILS.



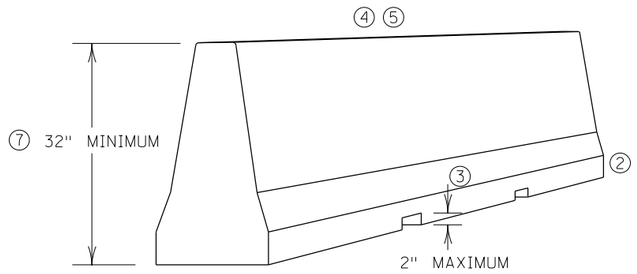
DETECTABLE EDGE FOR SIGN ON PORTABLE STAND



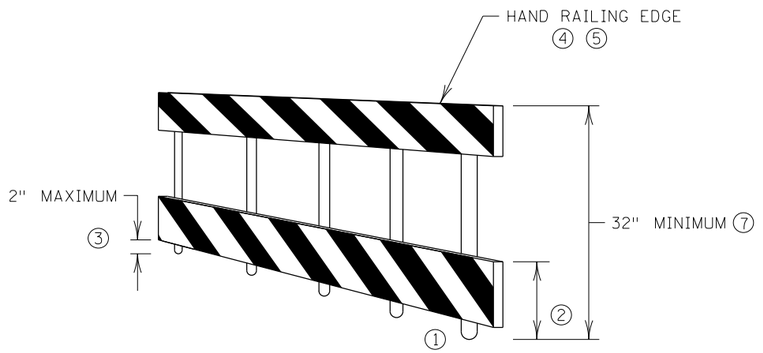
TRIP HAZARD



SIDEWALK BARRICADE



PEDESTRIAN CHANNELIZER DEVICE USING A PORTABLE CONCRETE BARRIER



PEDESTRIAN CHANNELIZER

REVISION:
APPROVED: 03-18-2021
BRIAN SORENSON STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.813	1 OF 2
APPROVED: 03-18-2021 REVISED:	

THOMAS STYRBICKI
STATE DESIGN ENGINEER

TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) DEVICES

CHANNELIZERS, SIDEWALK BARRICADES, AND PORTABLE STANDS

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 69 OF 359 SHEETS

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NOTES:

CONSTRUCT SLOPES AS INDICATED OR FLATTER, BUT NOT STEEPER.

TPAR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS.

① CONSTRUCT CURB RAMPS AT LEAST 48" WIDE WITH A FIRM, STABLE, AND SLIP-RESISTANT SURFACE.

② PLACE PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1V:3H. CONSIDER PROTECTIVE EDGING WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ PLACE DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION.

④ CONSTRUCT CURB RAMPS AND LANDINGS WITH A 2% OR FLATTER CROSS SLOPE.

⑤ PROVIDE A CLEAR SPACE OF AT LEAST 48" X 48" ABOVE AND BELOW THE CURB RAMP.

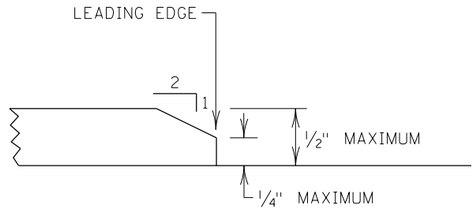
⑥ MARK THE CURB RAMP WALKWAY EDGE WITH A 2" TO 4" WIDE MARKING OF CONTRASTING COLOR. THE MARKING IS OPTIONAL WHERE COLOR-CONTRASTING EDGING IS USED.

⑦ DO NOT IMPEDE WATER FLOW IN THE GUTTER SYSTEM.

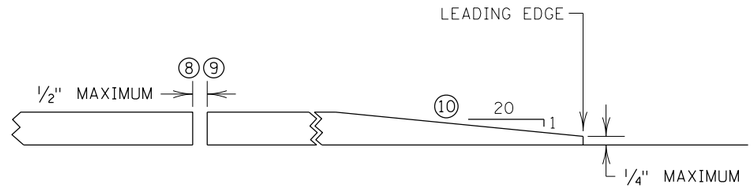
⑧ NO LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL EXCEED ½" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". USE VERTICAL LATERAL EDGES UP TO ¼" HIGH, AND BEVELED AT 1V:2H FOR LATERAL EDGES BETWEEN ¼" AND ½" HEIGHT.

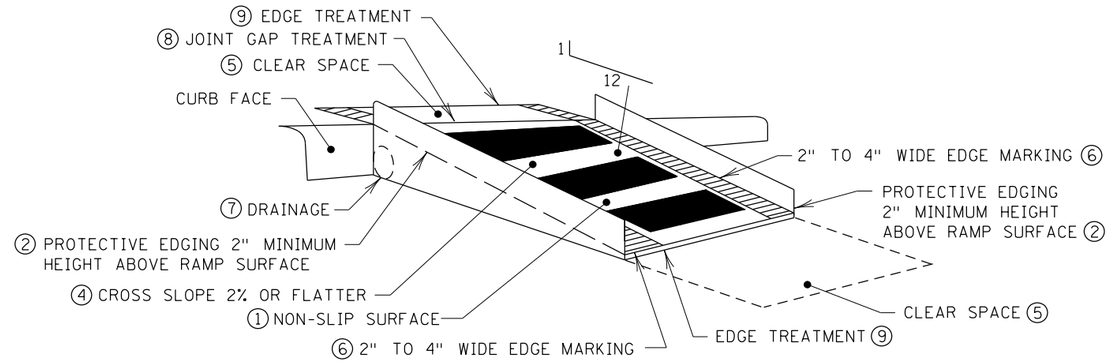
⑩ BEVEL THE EDGE OF TEMPORARY WALKWAY SURFACES ½" OR THINNER AT 1V:2H. FOR THICKER WALKWAY SURFACE BEVEL EDGE 1V:20H OR FLATTER.



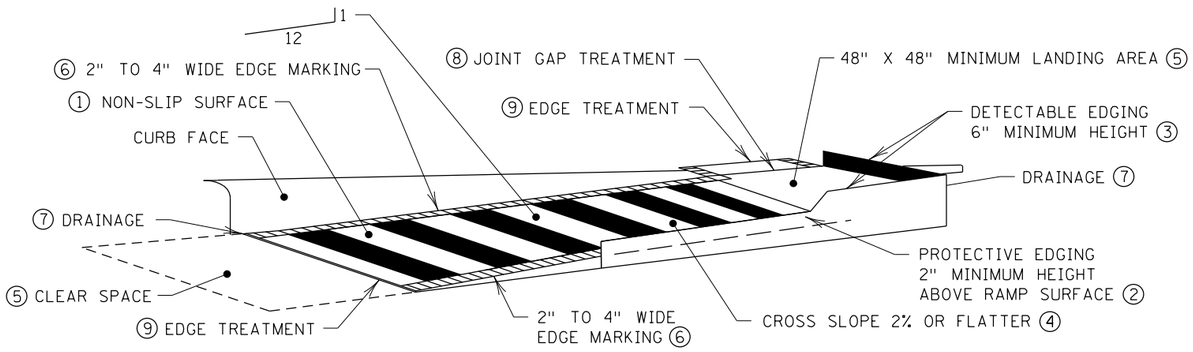
EDGE TREATMENT ⑨



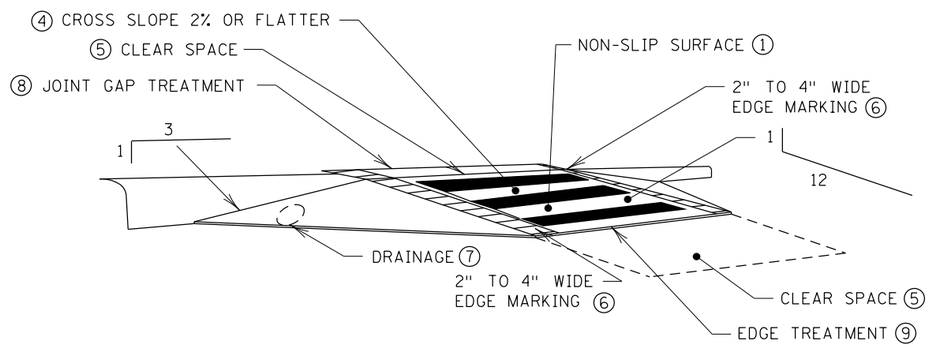
TEMPORARY WALKWAY SURFACE



TEMPORARY CURB RAMP PERPENDICULAR TO CURB
SHOWN WITH PROTECTIVE EDGE



TEMPORARY CURB RAMP
PARALLEL TO CURB



TEMPORARY CURB RAMP PERPENDICULAR TO CURB
SHOWN WITH SIDE APRON

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REVISION:
APPROVED: 03-18-2021
BRIAN SORENSON STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.813	2 OF 2
APPROVED: 03-18-2021 REVISED:	

THOMAS STYRBICKI
STATE DESIGN ENGINEER

TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) DEVICES
TEMPORARY CURB RAMPS AND WALKWAY SURFACES

SP 1008-87 (TH 41=260), SP 196-010-017, SP 196-010-018, SP 196-020-014 SHEET NO. 70 OF 359 SHEETS

BEGIN S.P. 1008-87,
S.P. 196-010-017, S.P. 196-010-018
T.H. 41 N.B. STA 81+07.12

℄ BRDG-1ST W

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

EQUATION:
STA 99+02.88 BK =
STA 98+99.61 AH

℄ 1ST-2ND W

℄ 2ND-3RD W

℄ 3RD-4TH W

℄ 4TH-5TH W

℄ PEDESTRIAN
UNDERPASS

RETAINING
WALL A

RETAINING
WALL B

BEGIN S.P. 196-020-014
C.S.A.H. 61 E.B. STA 18+38.82

END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

℄ CSAH61-
WALNUT W

℄ CSAH61-
WALNUT E

℄ C.S.A.H. 61 W.B.

℄ WALNUT-YB N

EQUATION:
STA 27+88.20 BK =
STA 27+75.83 AH

YELLOW BRICK
RD

℄ C.S.A.H. 61 E.B.

END S.P. 196-020-014
C.S.A.H. 61 E.B. STA 34+26.52

1ST STREET

2ND STREET

3RD STREET

4TH STREET

5TH STREET

N WALNUT
ST

℄ 1ST-2ND E

℄ 2ND-3RD E

℄ 3RD-4TH E

℄ 4TH-5TH E

RETAINING
WALL C

RETAINING
WALL D

CONTROL DATA

HORIZ: NAD 83 (1986)

VERT: NAVD 88

0 150 300
SCALE FEET

BOLTON & MENK

12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	BAU
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
ALIGNMENT PLAN & TABULATION

SHEET 71 OF 359

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ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 41 N.B. (TH41_NB)										
1	POT	78+00.000						544,216.9606	151,053.7966	
	PC	81+06.884						543,995.5685	151,266.3138	313° 49' 41.79"
TH41_NB_1	PI	84+31.927	28° 36' 15.07" RT	4° 29' 37.63"	1,275.000'	325.043'	636.527'	543,761.0764	151,491.4059	PI
	CC							544,878.5051	152,186.1225	
	PT	87+43.412						543,662.9688	151,801.2895	342° 25' 56.86"
	PC	88+12.923						543,641.9882	151,867.5589	342° 25' 56.86"
TH41_NB_2	PI	88+94.414	2° 49' 44.99" LT	1° 44' 10.45"	3,300.000'	81.491'	162.948'	543,617.3919	151,945.2490	PI
	CC							540,495.8942	150,871.5205	
	PT	89+75.871						543,588.9909	152,021.6303	339° 36' 11.87"
	PC	94+04.623						543,439.5630	152,423.5006	339° 36' 11.87"
TH41_NB_3	PI	94+57.297	4° 03' 07.31" LT	3° 50' 52.57"	1,489.000'	52.674'	105.304'	543,421.2052	152,472.8720	PI
	CC							542,043.9203	151,904.5571	
	PT	95+09.927						543,399.4046	152,520.8227	335° 33' 04.56"
	PC	96+79.545						543,329.2033	152,675.2312	335° 33' 04.56"
TH41_NB_4	PI	97+40.344	9° 16' 52.98" RT	7° 38' 58.69"	749.000'	60.799'	121.331'	543,304.0401	152,730.5781	PI
	CC							544,011.0420	152,985.2265	
	PT	98+00.876						543,288.1328	152,789.2587	344° 49' 57.54"
2	POT	109+49.246						542,987.6742	153,897.6260	
3	POT	112+79.458						542,911.9425	154,219.0368	
4	POT	116+12.533						542,824.7971	154,540.5090	
5	POT	117+30.416						542,792.9904	154,654.0194	
	PC	118+18.480						542,769.9492	154,739.0164	344° 49' 57.54"
TH41_NB_5	PI	119+91.275	15° 55' 00.93" RT	4° 38' 08.09"	1,236.000'	172.795'	343.364'	542,724.7393	154,905.7921	PI
	CC							543,962.8940	155,062.4025	
	PT	121+61.844						542,726.9998	155,078.5721	0° 44' 58.47"
6	POT	126+24.579						542,733.0534	155,541.2666	
T.H. 41 S.B. (TH41_SB)										
8	POT	83+35.297						543,845.7980	151,438.3651	
	PC	83+79.417						543,819.9227	151,474.1008	324° 05' 33.51"
TH41_SB_1	PI	85+83.700	15° 30' 38.35" RT	3° 49' 10.99"	1,500.000'	204.283'	406.068'	543,700.1155	151,639.5632	PI
	CC							545,034.8722	152,353.8153	
	PT	87+85.485						543,628.9192	151,831.0381	339° 36' 11.87"
	PC	94+06.745						543,412.3988	152,413.3463	339° 36' 11.87"
TH41_SB_2	PI	94+57.124	3° 50' 50.24" LT	3° 49' 10.99"	1,500.000'	50.380'	100.722'	543,394.8405	152,460.5674	PI
	CC							542,006.4457	151,890.5691	
	PT	95+07.466						543,374.1534	152,506.5040	335° 45' 21.63"
	PC	95+41.726						543,360.0856	152,537.7422	335° 45' 21.63"
TH41_SB_3	PI	95+98.538	6° 29' 48.06" RT	5° 43' 25.87"	1,001.000'	56.812'	113.502'	543,336.7573	152,589.5435	PI
	CC							544,272.8025	152,948.7761	
	PT	96+55.228						543,319.4399	152,643.6517	342° 15' 09.69"
	PC	98+12.776						543,271.4163	152,793.7017	342° 15' 09.69"
TH41_SB_4	PI	98+57.835	2° 34' 47.85" RT	2° 51' 48.09"	2,001.000'	45.059'	90.103'	543,257.6815	152,836.6163	PI
	CC							545,177.1890	153,403.6456	
	PT	99+02.878						543,245.8923	152,880.1056	344° 49' 57.54"
SB1	POT	98+99.610						543,245.8923	152,880.1056	
	PC	118+01.353						542,748.3217	154,715.6030	344° 49' 57.54"

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
TH41_SB_5	PI	119+16.654	14° 51' 44.27" RT	6° 28' 53.12"	884.000'	115.300'	229.306'	542,718.1546	154,826.8868	PI
	CC							543,601.5282	154,946.8920	
	PT	120+30.659						542,717.5408	154,942.1855	359° 41' 41.81"
	PC	122+97.117						542,716.1221	155,208.6389	359° 41' 41.81"
TH41_SB_6	PI	123+20.025	1° 03' 16.66" RT	2° 18' 07.06"	2,489.000'	22.908'	45.814'	542,716.0001	155,231.5464	PI
	CC							545,205.0868	155,221.8907	
	PT	123+42.931						542,716.2998	155,254.4523	0° 44' 58.47"
9	POT	126+29.940						542,720.0545	155,541.4367	
C.S.A.H. 61 E.B. (CSAH61_EB)										
10	POT	18+25.000						542,650.0930	154,538.8663	
11	POT	19+20.726						542,742.4381	154,564.0829	
12	POT	20+28.893						542,846.5531	154,593.4124	
	PC	21+01.183						542,916.2891	154,612.4552	74° 43' 35.75"
CSAH61_EB1	PI	22+11.911	20° 54' 43.95" LT	9° 32' 57.47"	600.000'	110.728'	218.992'	543,023.1062	154,641.6238	PI
	CC							542,758.2340	155,191.2631	
	PT	23+20.175						543,112.4757	154,706.9979	53° 48' 51.81"
	PC	24+90.757						543,250.1538	154,807.7099	53° 48' 51.81"
CSAH61_EB2	PI	25+23.756	3° 49' 19.63" LT	5° 47' 35.90"	989.000'	33.000'	65.975'	543,276.7881	154,827.1930	PI
	CC							542,666.2453	155,605.9404	
	PT	25+56.731						543,302.0644	154,848.4082	49° 59' 32.18"
13	POT	27+75.835						543,469.8884	154,989.2678	
14	POT	31+38.974						543,753.2749	155,216.3404	
15	POT	34+74.521						544,011.2717	155,430.8852	
C.S.A.H. 61 W.B. (CSAH61_WB)										
16	POT	18+50.000						542,648.1449	154,558.0300	
17	POT	19+39.146						542,734.1423	154,581.5133	
18	POT	20+50.724						542,841.5480	154,611.7413	
	PC	21+22.968						542,911.2402	154,630.7722	74° 43' 35.75"
CSAH61_WB1	PI	22+01.943	21° 06' 07.29" LT	13° 30' 47.36"	424.000'	78.974'	156.159'	542,987.4251	154,651.5760	PI
	CC							542,799.5479	155,039.7964	
	PT	22+79.127						543,051.0111	154,698.4136	53° 37' 28.46"
	PC	26+30.693						543,334.0737	154,906.9179	53° 37' 28.46"
CSAH61_WB2	PI	26+71.574	2° 19' 44.95" LT	2° 50' 56.83"	2,011.000'	40.881'	81.750'	543,366.9886	154,931.1631	PI
	CC							542,141.4026	156,526.0710	
	PT	27+12.443						543,398.8910	154,956.7260	51° 17' 43.51"
WB1	POT	27+75.830						543,458.0103	155,004.0972	
20	POT	32+61.455						543,836.9829	155,307.7612	
21	POT	34+74.306						544,005.7153	155,437.5099	
PEDESTRIAN UNDERPASS (TR_UNDR)										
22	POT	30+00.000						542,535.7653	154,169.1012	
	PC	30+69.714						542,593.6372	154,207.9708	56° 06' 45.86"
TR_UNDR_1	PI	30+90.862	4° 50' 38.05" LT	11° 27' 32.96"	500.000'	21.148'	42.271'	542,611.1930	154,219.7622	PI
	CC							542,314.8569	154,623.0390	
	PT	31+11.985						542,627.6904	154,232.9939	51° 16' 07.81"
23	POT	37+79.255						543,148.2216	154,650.4830	

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BOLTON & MENK
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Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	BAU
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
ALIGNMENT PLAN & TABULATION

SHEET 72 OF 359

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 41 WEST SIDEWALK BETWEEN MN RIVER BRIDGE AND 1ST ST (BRDG-1ST_W)										
	PC	594+43.194						543,341.0468	152,437.4128	50° 26' 50.01"
BRDG-1ST_W_1	PI	594+67.315	57° 27' 49.07" LT	130° 13' 03.65"	44.000'	24.121'	44.129'	543,359.6451	152,452.7728	PI
	CC							543,313.0281	152,471.3385	
	PT	594+87.323						543,356.6986	152,476.7133	352° 59' 00.94"
24	POT	597+52.389						543,257.3171	152,722.4427	
T.H. 41 EAST SIDEWALK BETWEEN 1ST ST AND 2ND ST (1ST-2ND_E)										
26	POT	497+76.467						543,321.8533	152,773.1350	
27	POT	500+45.978						543,247.4537	153,032.1738	
28	POT	500+53.067						543,245.0007	153,038.8251	
29	POT	501+36.935						543,223.0576	153,119.7712	
T.H. 41 WEST SIDEWALK BETWEEN 1ST ST AND 2ND ST (1ST-2ND_W)										
30	POT	597+82.507						543,253.4470	152,760.8240	
31	POT	598+60.658						543,232.9459	152,836.2381	
32	POT	601+37.879						543,160.2232	153,103.7505	
T.H. 41 EAST SIDEWALK BETWEEN 2ND ST AND 3RD ST (2ND-3RD_E)										
35	POT	501+61.470						543,217.4074	153,143.6950	
36	POT	504+35.829						543,145.9425	153,408.5829	
37	POT	504+40.490						543,143.6639	153,412.6482	
38	POT	505+16.796						543,123.6992	153,486.2963	
T.H. 41 WEST SIDEWALK BETWEEN 2ND ST AND 3RD ST (2ND-3RD_W)										
40	POT	601+61.866						543,154.4185	153,127.0293	
41	POT	602+39.589						543,134.0983	153,202.0495	
42	POT	602+50.451						543,131.3846	153,212.5665	
43	POT	605+17.369						543,061.5377	153,470.1844	
T.H. 41 EAST SIDEWALK BETWEEN 3RD ST AND 4TH ST (3RD-4TH_E)										
45	POT	505+44.765						543,118.2150	153,513.9336	
46	POT	508+18.946						543,046.4605	153,778.5587	
47	POT	508+98.870						543,025.5437	153,855.6980	
T.H. 41 WEST SIDEWALK BETWEEN 3RD ST AND 4TH ST (3RD-4TH_W)										
50	POT	605+44.230						543,054.3924	153,496.0780	
51	POT	606+19.054						543,034.8154	153,568.2959	
52	POT	606+23.973						543,032.5176	153,572.6451	
53	POT	607+09.629						543,010.1065	153,655.3178	
54	POT	607+33.774						543,005.4959	153,679.0184	
55	POT	608+10.759						542,985.4832	153,753.3561	
56	POT	608+98.532						542,962.5183	153,838.0716	

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 41 EAST SIDEWALK BETWEEN 4TH ST AND 5TH ST (4TH-5TH_E)										
58	POT	509+39.565						543,015.2899	153,894.2236	
59	POT	511+84.113						542,951.0303	154,130.1779	
60	POT	512+19.839						542,940.9030	154,164.4388	
61	POT	512+74.838						542,926.5133	154,217.5212	
T.H. 41 WEST SIDEWALK BETWEEN 4TH ST AND 5TH ST (4TH-5TH_W)										
63	POT	609+26.513						542,955.3373	153,865.3062	
64	POT	610+30.799						542,928.0520	153,965.9593	
65	POT	610+40.848						542,926.4008	153,975.8726	
66	POT	611+70.100						542,892.5834	154,100.6222	
67	POT	611+98.769						542,884.1649	154,128.0269	
68	POT	612+11.936						542,874.6813	154,137.1608	
69	POT	612+77.650						542,857.4878	154,200.5860	
T.H. 41 EAST SIDEWALK BETWEEN C.S.A.H. 61 AND WALNUT ST (61-WALNUT_E)										
84	POT	517+11.664						542,823.5755	154,643.1150	
	PC	518+18.255						542,795.6870	154,745.9935	344° 49' 57.54"
61-WALNUT_E_1	PI	518+72.237	5° 06' 42.04" RT	4° 44' 16.08"	1,209.333'	53.982'	107.891'	542,781.5633	154,798.0946	PI
	CC							543,962.8940	155,062.4025	
	PT	519+26.147						542,772.1378	154,851.2469	349° 56' 39.58"
	PC	519+32.942						542,772.3060	154,858.0399	350° 15' 36.65"
61-WALNUT_E_2	PI	519+51.522	1° 45' 44.65" RT	4° 44' 34.90"	1,208.000'	18.580'	37.158'	542,769.1627	154,876.3524	PI
	CC							543,962.8940	155,062.4025	
	PT	519+70.099						542,766.5841	154,894.7530	352° 01' 21.30"
	PC	519+76.894						542,764.3566	154,901.1726	352° 20' 18.38"
61-WALNUT_E_3	PI	520+31.677	5° 11' 14.81" RT	4° 44' 16.08"	1,209.333'	54.783'	109.491'	542,757.0529	154,955.4663	PI
	CC							543,962.8940	155,062.4025	
	PT	520+86.385						542,754.6880	155,010.1980	357° 31' 33.19"
	PC	520+93.180						542,755.7510	155,016.9094	357° 50' 30.26"
61-WALNUT_E_4	PI	521+11.565	1° 44' 37.72" RT	4° 44' 34.90"	1,208.000'	18.384'	36.766'	542,755.0587	155,035.2807	PI
	CC							543,962.8940	155,062.4025	
	PT	521+29.946						542,754.9257	155,053.6645	359° 35' 07.98"
	PC	521+36.741						542,753.5625	155,060.3214	359° 54' 05.05"
61-WALNUT_E_5	PI	521+45.692	0° 50' 53.42" RT	4° 44' 16.08"	1,209.333'	8.951'	17.902'	542,753.5471	155,069.2727	PI
	CC							543,962.8940	155,062.4025	
	PT	521+54.643						542,753.6642	155,078.2232	0° 44' 58.47"
85	POT	522+26.671						542,754.6065	155,150.2452	
86	POT	522+47.950						542,765.0183	155,168.8020	
87	POT	523+28.020						542,765.5816	155,248.8708	
T.H. 41 WEST SIDEWALK BETWEEN C.S.A.H. 61 AND WALNUT ST (61-WALNUT_W)										
89	POT	617+07.961						542,729.9244	154,613.8527	
90	POT	617+65.997						542,715.1393	154,669.9735	
91	POT	617+85.080						542,709.1516	154,688.0926	
	PC	618+01.775						542,704.7869	154,704.2070	344° 51' 24.46"
61-WALNUT_W_1	PI	619+22.745	14° 50' 17.35" RT	6° 10' 02.89"	929.000'	120.971'	240.587'	542,673.1855	154,820.9770	PI
	CC							543,601.5282	154,946.8920	

BOLTON & MENK
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REV.	BY	DATE

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	BAU
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
ALIGNMENT PLAN & TABULATION

SHEET 73 OF 359

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ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
	PT	620+42.362						542,672.5414	154,941.9459	359° 41' 41.81"
92	POT	621+06.491						542,672.2000	155,006.0738	
93	POT	622+57.800						542,685.2675	155,156.8169	
94	POT	623+21.923						542,686.1052	155,220.9351	
95	POT	623+61.947						542,689.8805	155,260.7802	
C.S.A.H. 61 NORTH SIDEWALK BETWEEN WALNUT ST AND YELLOW BRICK RD (WALNUT-YB_N)										
97	POT	55+00.000						543,205.2833	154,846.2118	
98	POT	56+26.360						543,302.6106	154,926.7984	
	PC	56+39.902						543,313.5137	154,934.8297	53° 37' 28.47"
WALNUT-YB_N_1	PI	56+80.078	2° 19' 44.96" LT	2° 53' 56.74"	1,976.333'	40.176'	80.341'	543,345.8613	154,958.6570	PI
	CC							542,141.4026	156,526.0710	
	PT	57+20.242						543,377.2138	154,983.7792	51° 17' 43.51"
99	POT	59+77.213						543,577.7484	155,144.4640	
RETAINING WALL A (WALL_A)										
	PC	0+00.000						542,602.0006	154,195.5188	56° 06' 45.86"
WALL_A_1	PI	0+21.783	4° 50' 38.05" LT	11° 07' 31.42"	515.000'	21.783'	43.539'	542,620.0831	154,207.6639	PI
	CC							542,314.8569	154,623.0390	
	PT	0+43.539						542,637.0755	154,221.2925	51° 16' 07.81"
100	POT	2+61.652						542,807.2230	154,357.7584	
RETAINING WALL B (WALL_B)										
102	POT	5+00.000						542,590.3260	154,209.4354	
103	POT	7+62.000						542,794.7096	154,373.3602	
RETAINING WALL C (WALL_C)										
104	POT	10+00.000						542,900.6888	154,432.7222	
105	POT	12+42.000						543,089.4707	154,584.1336	
RETAINING WALL D (WALL_D)										
106	POT	15+00.000						542,888.1755	154,448.3240	
107	POT	17+42.000						543,076.9573	154,599.7354	

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	BAU
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
ALIGNMENT PLAN & TABULATION

SHEET 74 OF 359

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EXISTING CONDITIONS PLAN LEGEND

EXISTING RIGHT-OF-WAY	HYDRANT
PERMANENT ROADWAY EASEMENT	GATE VALVE
CONSTRUCTION LIMITS	WATER VALVE
SANITARY SEWER	TRAFFIC SIGNAL POLE
STORM SEWER	COMMUNICATION MANHOLE
WATERMAIN	UTILITY MANHOLE
OVERHEAD POWER	GAS MARKER
GAS	ELECTRIC PEDESTAL
ELECTRIC UNDERGROUND	HANDHOLE
FIBER OPTIC UNDERGROUND	ELECTRIC HANDHOLE
FIBER OPTIC UNDERGROUND IN CONDUIT	TELPHONE METER
TV UNDERGROUND IN CONDUIT	COMMUNICATION PEDESTAL
COMMUNICATIONS UNDERGROUND IN CONDUIT	POWER POLE
TELEPHONE BURIED	LIGHT POLE
TV BURIED	COMMUNICATION HANDHOLE
SANITARY SEWER MANHOLE	FIBER OPTIC MARKER
STORM SEWER MANHOLE	
CATCH BASIN	

THE FOLLOWING LIST SHOWS THE IMPACTED UTILITY COMPANIES ON THIS PROJECT	
FULL NAME	**NAME IN TABULATION**
ARVIG COMMUNICATIONS SYSTEMS	ARVIG
CENTERPOINT ENERGY	CENTERPOINT
COMCAST CABLE LLC	COMCAST
CENTURYLINK	LUMEN
MCI COMMUNICATION SERVICES LLC	MCI
METRONET	METRONET
XCEL ENERGY	XCEL
ZAYO GROUP LLC	ZAYO
CARVERLINK	CARVER
CITY OF CHASKA	CHASKA
MINNESOTA DEPT OF TRANSPORTATION	MNDOT

GENERAL NOTES:

-ALL PRIVATE UTILITY WORK SHOWN ON THESE SHEETS SHALL BE DONE BY OTHERS UNLESS NOTED.

-THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI / ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

-THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL PRIVATE UTILITY RELOCATION COORDINATION.

-SEE EXISTING CONDITIONS PLAN FOR CULTURAL/TRIBAL RESOURCE MONITORING AREAS. ANY WORK PERFORMED IN THESE AREAS WILL REQUIRE MONITORING. SEE SPECIAL PROVISIONS.

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SHEET 75 OF 359

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Tom Bonk 3/18/2022

UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
TH41_NB							
80+06 R 1 - 97+24 R 1	13R - 45R	FIBER OPTIC IN COND	LUMEN	X			24 FIBER-RIASE; STRM 41-313 TO 41-311
80+06 R 1 - 97+24 R 1	11R - 45R	FIBER OPTIC IN COND	LUMEN	X			36 FIBER-RIASE; STRM 41-313 TO 41-311
80+08 R 1 - 95+17 R 1	43L - 17L	FIBER OPTIC BURIED	ZAYO	X			RAISE; STRM 41-311 TO 41-309
94+98 R 1 - 95+17 R 1	41L - 77R	FIBER OPTIC BURIED	ZAYO			X	
95+18 R 1 - 96+31 R 1	23R - 77R	T-BUR IN COND	LUMEN			X	100 PR
97+18 R 1 - 97+36 R 1	105L - 114R	FIBER OPTIC IN COND	LUMEN	X			24 FIBER-RAISE; STRM 41-319 TO 41-306, 41-320 TO 41-316
97+24 R 1	45R	TV HH	LUMEN	X			MH 8511.1L-RAISE/LOWER TO PROP GRADE
100+27 R 1 - 100+53 R 1	37R - 53R	T-BUR	LUMEN			X	
100+99 R 1 - 101+96 R 1	177R - 189R	FIBER OPTIC BURIED	METRONET			X	
100+99 R 1 - 102+21 R 1	185R - 189R	TV CABLE	COMCAST			X	
100+99 R 1 - 105+04 R 1	182R - 192R	FIBER OPTIC BURIED	LUMEN			X	96 FIBER
100+99 R 1 - 102+12 R 1	187R - 190R	FIBER OPTIC BURIED	LUMEN			X	36 FIBER
100+99 R 1 - 105+04 R 1	182R - 192R	T-BUR	LUMEN			X	300 PR
100+99 R 1 - 102+08 R 1	188R - 190R	T-BUR	LUMEN			X	200 PR
101+85 R 1 - 102+21 R 1	186R - 338R	TV CABLE	COMCAST			X	
101+87 R 1 - 101+96 R 1	189R - 338R	FIBER OPTIC BURIED	METRONET			X	
101+87 R 1 - 101+96 R 1	97L - 189R	FIBER OPTIC BURIED	METRONET	X			RAISE; STRM 41-358 TO 41-354
101+96 R 1	189R	TEL HH	METRONET	X			MATCH PROP GRADE
102+08 R 1 - 104+26 R 1	184R - 190R	T-BUR	LUMEN			X	200 PR
102+09 R 1	190R	TEL PED	LUMEN	X			PED 217-9020;MATCH PROP GRADE
102+12 R 1 - 104+26 R 1	184R - 190R	FIBER OPTIC BURIED	LUMEN			X	36 FIBER
102+12 R 1	190R	TEL PED	LUMEN	X			PED 217-9020;MATCH PROP GRADE
102+12 R 1 - 102+18 R 1	190R - 191R	T-BUR	LUMEN			X	25 PR
102+12 R 1 - 102+55 R 1	130R - 190R	T-BUR	LUMEN			X	25 PR
102+12 R 1 - 102+55 R 1	91R - 190R	T-BUR	LUMEN			X	25 PR
102+12 R 1 - 102+76 R 1	100R - 190R	T-BUR	LUMEN			X	25 PR
102+12 R 1 - 102+55 R 1	98R - 190R	T-BUR	LUMEN			X	25 PR
102+12 R 1 - 102+53 R 1	188R - 296R	T-BUR	LUMEN			X	25 PR
102+12 R 1 - 102+52 R 1	188R - 284R	T-BUR	LUMEN			X	25 PR
102+12 R 1 - 102+24 R 1	174R - 190R	T-BUR	LUMEN			X	25 PR
102+21 R 1	189R	COM POLE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+21 R 1 - 102+73 R 1	189R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+33 R 1 - 102+73 R 1	174R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+34 R 1 - 102+73 R 1	190R - 294R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+48 R 1 - 102+73 R 1	91R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+51 R 1 - 102+73 R 1	190R - 239R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+53 R 1 - 102+73 R 1	133R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+57 R 1 - 102+73 R 1	98R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+73 R 1 - 104+28 R 1	189R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+73 R 1 - 102+75 R 1	98R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
102+73 R 1 - 103+23 R 1	190R - 308R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
103+07 R 1 - 104+26 R 1	89R - 188R	T-BUR	LUMEN			X	25 PR
103+38 R 1 - 104+26 R 1	115R - 188R	T-BUR	LUMEN			X	25 PR
103+39 R 1 - 104+28 R 1	117R - 189R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
103+42 R 1 - 104+28 R 1	189R - 280R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
103+81 R 1 - 104+28 R 1	94R - 189R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
103+81 R 1 - 104+26 R 1	92R - 188R	T-BUR	LUMEN			X	25 PR
103+87 R 1 - 104+28 R 1	82R - 189R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
103+91 R 1 - 104+28 R 1	189R - 292R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
103+91 R 1 - 104+26 R 1	83R - 188R	T-BUR	LUMEN			X	25 PR
104+15 R 1 - 104+28 R 1	189R - 293R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
104+22 R 1 - 104+32 R 1	83R - 188R	T-BUR	LUMEN			X	25 PR

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SHEET 76 OF 359

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UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
104+23 R 1 - 104+36 R 1	181R - 302R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
104+26 R 1 - 105+04 R 1	185R - 192R	FIBER OPTIC BURIED	LUMEN			X	36 FIBER
104+26 R 1	188R	TEL PED	LUMEN		X		PED 217-9019; ALLEY CONFL.
104+26 R 1 - 104+42 R 1	183R - 190R	T-BUR	LUMEN			X	25 PR
104+26 R 1 - 104+35 R 1	188R - 241R	T-BUR	LUMEN			X	25 PR
104+26 R 1 - 104+36 R 1	188R - 282R	T-BUR	LUMEN			X	25 PR
104+26 R 1 - 105+04 R 1	185R - 192R	T-BUR	LUMEN			X	200 PR
104+28 R 1 - 104+43 R 1	95R - 189R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
104+28 R 1 - 104+71 R 1	95R - 189R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
104+28 R 1 - 104+42 R 1	189R - 190R	OVERHEAD COMMUNICATION LINE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
104+28 R 1 - 104+35 R 1	189R - 242R	TV CABLE	COMCAST		X		BURY OHC WITH CHASKA ELECT.
105+04 R 1	192R	COM MH	LUMEN			X	MH 8511
105+04 R 1 - 105+06 R 1	105L - 331R	T-BUR IN COND	LUMEN	X			8 WAY DUCT-RAISE; STRM 41-376 TO 41-372
109+28 R 1 - 109+34 R 1	107L - 298R	FIBER OPTIC BURIED	LUMEN	X			RAISE; STRM 41-416 TO 41-412
109+55 R 1 - 109+59 R 1	194R - 297R	FIBER OPTIC BURIED	LUMEN			X	72 FIBER
109+57 R 1 - 109+81 R 1	117R - 194R	FIBER OPTIC BURIED	LUMEN			X	24 FIBER
109+59 R 1	194R	COM HH	LUMEN			X	HH-400N
109+82 R 1 - 110+79 R 1	119R - 186R	TV CABLE	COMCAST			X	
109+83 R 1 - 110+79 R 1	118R - 185R	T-BUR	LUMEN			X	100 PR
110+38 R 1 - 111+20 R 1	73R - 158R	TV CABLE	COMCAST			X	
110+62 R 1 - 110+64 R 1	261R - 292R	FIBER OPTIC BURIED	METRONET			X	
110+63 R 1 - 110+82 R 1	186R - 263R	TV CABLE	COMCAST			X	
110+77 R 1 - 112+48 R 1	58L - 50L	TV CABLE	COMCAST			X	
110+79 R 1 - 111+87 R 1	177R - 186R	TV CABLE	COMCAST			X	
110+79 R 1	186R	TEL PED	COMCAST			X	
110+79 R 1	185R	TEL PED	LUMEN			X	PED 201-9044
110+79 R 1 - 111+85 R 1	183R - 185R	T-BUR	LUMEN			X	200 PR
111+32 R 1 - 112+40 R 1	147R - 202R	TV CABLE	COMCAST			X	
111+65 R 1 - 111+78 R 1	64R - 74R	TV CABLE	COMCAST			X	
111+73 R 1 - 111+98 R 1	266R - 277R	TV CABLE	COMCAST			X	
111+73 R 1	60R	TEL PED	LUMEN			X	PED 201-9003
111+73 R 1 - 111+85 R 1	60R - 183R	T-BUR	LUMEN			X	25 PR
111+76 R 1 - 111+85 R 1	45R - 183R	T-BUR	LUMEN			X	25 PR
111+77 R 1 - 111+85 R 1	110R - 183R	T-BUR	LUMEN			X	100 PR
111+78 R 1 - 111+86 R 1	67R - 182R	FIBER OPTIC BURIED	METRONET			X	
111+78 R 1 - 111+87 R 1	64R - 181R	TV CABLE	COMCAST			X	
111+78 R 1 - 111+83 R 1	55R - 64R	TV CABLE	COMCAST			X	
111+78 R 1	64R	TEL PED	COMCAST			X	
111+85 R 1	183R	TEL PED	LUMEN		X		PED 201-9041, ALLEY DRIVING LANE CONFLICT
111+85 R 1 - 113+32 R 1	163R - 183R	T-BUR	LUMEN			X	200 PR
111+86 R 1 - 112+56 R 1	181R - 182R	FIBER OPTIC BURIED	METRONET			X	
111+86 R 1	182R	TEL PED	METRONET		X		ALLEY DRIVING LANE CONFLICT
111+87 R 1 - 113+33 R 1	157R - 181R	TV CABLE	COMCAST			X	
111+87 R 1 - 111+98 R 1	181R - 266R	TV CABLE	COMCAST			X	
111+87 R 1	161R	TEL PED	COMCAST			X	
111+87 R 1	161R - 181R	TV CABLE	COMCAST			X	
111+87 R 1	181R	TEL PED	COMCAST		X		REMOVE, ALLEY DRIVING LANE CONFLICT
111+98 R 1 - 112+18 R 1	266R - 283R	TV CABLE	COMCAST			X	
111+98 R 1 - 112+02 R 1	266R - 285R	TV CABLE	COMCAST			X	
111+98 R 1	266R	TEL PED	COMCAST			X	
112+45 R 1 - 112+48 R 1	122L - 58L	TV CABLE	COMCAST			X	
112+56 R 1 - 113+29 R 1	181R	FIBER OPTIC BURIED	METRONET			X	

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SHEET 77 OF 359

UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
113+10 R 1 - 113+26 R 1	113L - 20R	FIBER OPTIC BURIED	COMCAST		X		RAISE; STRM 41-202 TO 41-200 2-2" SCH 20 PVC
113+13 R 1 - 113+32 R 1	110L - 164R	T-BUR	LUMEN	X			600 PR-RAISE/LOWER; STRM 41-202 TO 41-200
113+26 R 1	20R	TEL HH	COMCAST	X			RAISE/LOWER TO MATCH GRADE
113+26 R 1 - 113+35 R 1	20R - 162R	FIBER OPTIC BURIED	COMCAST			X	
113+27 R 1 - 113+32 R 1	164R - 241R	T-BUR	LUMEN			X	600 PR
113+29 R 1	181R - 239R	FIBER OPTIC BURIED	METRONET			X	
113+30 R 1 - 113+32 R 1	164R - 237R	T-BUR	LUMEN			X	200 PR
113+32 R 1	164R	TEL PED	LUMEN			X	PED 201-9040
113+32 R 1 - 113+40 R 1	131R - 164R	T-BUR	LUMEN			X	
113+32 R 1 - 113+40 R 1	164R - 218R	T-BUR	LUMEN			X	
113+32 R 1 - 113+40 R 1	135R - 163R	T-BUR	LUMEN			X	
113+35 R 1 - 113+40 R 1	159R - 162R	TV CABLE	COMCAST			X	
113+35 R 1	162R	TEL PED	COMCAST			X	
113+25 R 1 - 113+35 R 1	162R - 243R	TV CABLE	COMCAST			X	
116+10 R 1 - 117+13 R 1	86L - 62R	FIBER OPTIC BURIED	METRONET	X			RAISE; STRM 41-102 TO 41-100, 61-217 TO 61-218
116+25 R 1 - 116+30 R 1	133L - 61R	FIBER OPTIC BURIED	MCI		X		STRM 41-107.2 & 41-107.1
116+41 R 1 - 123+64 R 1	19R - 62R	FIBER OPTIC BURIED	CARVER	X			RAISE; STRM 41-502 TO 41-500, 41-518 TO 41-514. STR 41-500, 41-516
116+96 R 1 - 116+95 R 1	132L - 66R	T-BUR IN COND	LUMEN			X	6 WAY DUCT
117+00 R 1 - 117+47 R 1	46R - 66R	FIBER OPTIC BURIED	MCI	X			RAISE; STRM 41-500 TO 61-216
116+96 R 1 - 119+65 R 1	19R - 72R	T-BUR IN COND	LUMEN	X			U ROUTE-RAISE/LOWER; STRM 41-502 TO 41-500, 41-516
117+47 R 1 - 123+64 R 1	27R - 46R	FIBER OPTIC BURIED	MCI	X			RAISE; STRM 41-516 TO 41-514
122+31 R 1 - 122+32 R 1	38R - 72R	FIBER OPTIC BURIED	CARVER			X	
122+31 R 1	38R	TEL HH	CARVER			X	
CSAH61_EB							
20+55 R 1 - 20+66 R 1	12R - 36R	FIBER OPTIC BURIED	CARVER	X			RAISE; 41-100 TO 61-122
20+55 R 1 - 20+79 R 1	32R - 33R	FIBER OPTIC BURIED	MCI	X			RAISE; STRM 41-100 TO 61-122
20+56 R 1 - 20+66 R 1	36R - 40R	FIBER OPTIC BURIED	METRONET			X	
20+59 R 1 - 20+79 R 1	42L - 33R	FIBER OPTIC BURIED	MCI	X			RAISE; STRM 41-100 TO 61-122
20+59 R 1 - 24+18 R 1	72L - 33L	T-BUR IN COND	LUMEN	X			6 WAY DUCT-LOWER; STRM 61-207 TO 61-116
20+66 R 1 - 22+83 R 1	32R - 62R	FIBER OPTIC BURIED	CARVER	X			LOWER AS NEEDED FOR DRIVEWAY CONSTRUCTION
20+66 R 1	36R	TEL HH	CARVER			X	
20+79 R 1 - 22+74 R 1	29R - 54R	FIBER OPTIC BURIED	MCI	X			LOWER AS NEEDED FOR DRIVEWAY CONSTRUCTION
20+79 R 1	33R	TEL HH	MCI			X	
22+74 R 1 - 23+70 R 1	54R - 96R	FIBER OPTIC BURIED	MCI	X			RAISE/LOWER; STRM FM
22+78 R 1 - 22+85 R 1	62R - 139R	FIBER OPTIC BURIED	CARVER		X		LIFT STATION CONFLICT
22+83 R 1	62R	TEL HH	CARVER		X		STORM FORCEMAIN, TRASH ENCLOSURE
23+26 R 1 - 23+35 R 1	146R - 155R	T-BUR IN COND	LUMEN			X	4 WAY DUCT
23+31 R 1 - 24+18 R 1	72L - 147R	T-BUR IN COND	LUMEN	X			4 WAY DUCT-LOWER; STRM 61-116 TO 61-115
23+35 R 1	147R	TV MH	LUMEN			X	MH 8507
23+35 R 1 - 23+36 R 1	147R - 158R	T-BUR	LUMEN			X	
23+38 R 1 - 23+70 R 1	93R - 159R	FIBER OPTIC BURIED	MCI			X	
23+68 R 1 - 23+88 R 1	168R - 169R	T-BUR	LUMEN			X	
23+70 R 1	93R	TEL HH	MCI			X	
23+95 R 1 - 24+25 R 1	102R - 160R	TV CABLE	COMCAST			X	
24+00 R 1	98R	TEL PED	COMCAST			X	
24+01 R 1	102R	TEL HH	COMCAST			X	

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

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BL	TWB	DMK

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SHEET 78 OF 359

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UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
24+01 R 1 - 26+99 R 1	102R - 154R	TV CABLE	COMCAST			X	
24+01 R 1 - 24+05 R 1	97R - 102R	TV CABLE	COMCAST			X	
24+01 R 1 - 27+90 R 1	102R - 176R	TV CABLE	COMCAST			X	
24+01 R 1 - 24+36 R 1	72L - 102R	TV CABLE	COMCAST		X		RAISE OR LOWER; STRM 61-116 TO 61-115; COAX IN 1.5" DUCT; 36" TO TOP, 38" TO BOT
24+05 R 1	97R	COM POLE	COMCAST			X	
24+06 R 1	96R	TEL PED	COMCAST			X	
24+17 R 1 - 24+38 R 1	139L - 72L	T-BUR IN COND	LUMEN			X	3 WAY DUCT
24+18 R 1	72L	TV MH	LUMEN	X			MH 8506-RAISE/LOWER TO PROP GRADE
24+18 R 1 - 26+83 R 1	72L - 60L	T-BUR	LUMEN			X	600 PR-RIASE
24+18 R 1 - 26+83 R 1	72L - 60L	T-BUR IN COND	LUMEN			X	U ROUTE
24+18 R 1 - 24+44 R 1	137L - 72L	T-BUR IN COND	LUMEN			X	4-WAY DUCT
24+18 R 1 - 24+41 R 1	138L - 72L	T-BUR IN COND	LUMEN			X	6 WAY DUCT
24+18 R 1 - 29+32 R 1	73L - 57L	FIBER OPTIC IN COND	LUMEN			X	48 FIBER
24+36 R 1 - 24+57 R 1	134L - 72L	TV CABLE	COMCAST			X	COAX IN 1.5" DUCT
24+36 R 1 - 29+34 R 1	72L - 64L	TV CABLE	COMCAST			X	COAX IN 1.5" DUCT
24+53 R 1	130R	TEL MH	COMCAST			X	
25+19 R 1 - 29+36 R 1	82L - 64L	FIBER OPTIC BURIED	ARVIG			X	
25+20 R 1 - 26+83 R 1	83L - 65L	T-BUR	LUMEN			X	100 PR
25+21 R 1 - 26+83 R 1	84L - 65L	FIBER OPTIC IN COND	LUMEN			X	24 FIBER IN CONDUIT
25+62 R 1	110R	COM POLE	COMCAST			X	
25+77 R 1 - 26+53 R 1	122L - 65L	TV CABLE	COMCAST			X	
26+53 R 1	65L	TEL PED	COMCAST			X	
26+79 R 1 - 26+83 R 1	117L - 66L	T-BUR	LUMEN			X	
26+83 R 1	65L	T-BUR	LUMEN			X	PED 201-9004
26+83 R 1 - 29+32 R 1	66L - 60L	T-BUR	LUMEN			X	600 PR
26+83 R 1 - 29+32 R 1	72L - 65L	T-BUR	LUMEN			X	100 PR
26+83 R 1 - 29+32 R 1	66L - 60L	FIBER OPTIC BURIED	LUMEN			X	48 FIBER
26+98 R 1	131R	COM POLE	COMCAST			X	
26+98 R 1	134R	TEL PED	COMCAST			X	
26+99 R 1 - 27+39 R 1	154R - 175R	TV CABLE	COMCAST			X	
27+99 R 1 - 29+47 R 1	115L - 67L	T-BUR	LUMEN			X	6 PR
28+74 R 1 - 29+36 R 1	66L - 114R	FIBER OPTIC BURIED	ARVIG		X		STORM POND; 61-109 TO 61-105
28+74 R 1 - 31+43 R 1	114R - 120R	OVERHEAD COMMUNICATION LINE	ARVIG			X	
29+32 R 1	66L	TV HH	LUMEN			X	HANDHOLE 8500
29+32 R 1	73L	TEL PED	LUMEN			X	PED 185-5
29+34 R 1 - 33+25 R 1	73L - 65L	OVERHEAD COMMUNICATION LINE	LUMEN			X	AERIAL 48 FIBER, 48 FIBER, 303 PR
29+36 R 1	66L	TV HH	ARVIG			X	
29+45 R 1 - 29+47 R 1	116L - 67L	T-BUR	LUMEN			X	100 PR
29+46 R 1 - 29+47 R 1	116L - 67L	T-BUR	LUMEN			X	600 PR
29+47 R 1 - 31+47 R 1	117L - 67L	T-BUR	LUMEN			X	6 PR
29+47 R 1	67L	TEL PED	LUMEN			X	PED 185-9027
TRAIL_UNDER							
29+36 R 1 - 30+04 R 1	182L - 19R	FIBER OPTIC BURIED	LUMEN			X	24 FIBER
29+37 R 1 - 30+15 R 1	213L - 20R	FIBER OPTIC BURIED	METRONET			X	
29+38 R 1 - 30+26 R 1	242L - 20R	FIBER OPTIC BURIED	ZAYO			X	
29+42 R 1 - 31+57 R 1	15L - 56R	T-BUR	LUMEN			X	50 PR
29+46 R 1 - 32+08 R 1	6L - 43R	FIBER OPTIC BURIED	METRONET		X		RETAINING WALL CONFLICT
29+91 R 1 - 31+57 R 1	16R - 56R	TV CABLE	COMCAST			X	
29+97 R 1 - 30+76 R 1	232L - 35R	FIBER OPTIC BURIED	LUMEN			X	
30+08 R 1 - 31+51 R 1	5R - 56R	T-BUR IN COND	LUMEN			X	200 PR IN CONDUIT

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SHEET 79 OF 359

UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
30+52 R 1 - 30+63 R 1	16R - 59R	TV CABLE	COMCAST			X	
30+63 R 1	16R	TEL HH	COMCAST			X	
30+83 R 1 - 32+08 R 1	23L - 43R	FIBER OPTIC BURIED	METRONET		X		RETAINING WALL CONFLICT
31+17 R 1 - 32+88 R 1	178L - 19L	T-BUR IN COND	LUMEN			X	100 PR IN CONDUIT
31+34 R 1	19L	TEL PED	LUMEN			X	PED 200-9013
31+36 R 1 - 31+57 R 1	56R - 94R	TV CABLE	COMCAST			X	
31+39 R 1 - 31+51 R 1	55R - 95R	T-BUR	LUMEN			X	
31+46 R 1 - 31+93 R 1	33L - 98R	TV CABLE	COMCAST		X		RETAINING WALL CONFLICT
31+51 R 1	55R	TEL PED	LUMEN			X	PED 200-9023
31+51 R 1 - 32+46 R 1	55R - 88R	T-BUR	LUMEN			X	
31+51 R 1 - 32+17 R 1	55R - 79R	T-BUR	LUMEN			X	
31+57 R 1 - 31+85 R 1	51R - 56R	TV CABLE	COMCAST			X	
31+57 R 1 - 31+84 R 1	56R - 59R	TV CABLE	COMCAST			X	
31+57 R 1 - 32+35 R 1	56R - 112R	TV CABLE	COMCAST			X	
31+57 R 1	56R	TEL PED	COMCAST			X	
31+57 R 1 - 32+40 R 1	56R - 108R	T-BUR	LUMEN			X	600 PR
31+59 R 1 - 32+11 R 1	165L - 133L	TV CABLE	COMCAST			X	
31+75 R 1 - 32+46 R 1	177L - 87L	T-BUR	LUMEN			X	
31+87 R 1 - 31+93 R 1	41L - 33L	TV CABLE	COMCAST			X	
31+93 R 1 - 32+53 R 1	65L - 33L	TV CABLE	COMCAST			X	
32+11 R 1 - 32+53 R 1	133L - 65L	TV CABLE	COMCAST			X	
32+11 R 1	133L	TEL PED	COMCAST			X	
32+15 R 1	176L	TEL PED	LUMEN			X	PED 200-9055
32+46 R 1 - 33+21 R 1	87L - 54L	T-BUR	LUMEN			X	
32+47 R 1	86L	TEL PED	LUMEN			X	PED 200-9012
32+53 R 1 - 33+28 R 1	65L - 49L	TV CABLE	COMCAST			X	
32+53 R 1 - 32+82 R 1	65L - 57R	TV CABLE	COMCAST		X		RETAINING WALL CONFLICT
32+53 R 1	65L	TEL PED	COMCAST			X	
32+53 R 1 - 33+33 R 1	107L - 100L	T-BUR	LUMEN			X	
34+36 R 1	107R	TEL PED	LUMEN			X	PED 201-9002
34+36 R 1 - 34+91 R 1	107R - 185R	T-BUR	LUMEN			X	
34+40 R 1	117R	TEL PED	COMCAST			X	
34+40 R 1 - 36+08 R 1	147R - 104R	TV CABLE	COMCAST			X	
34+40 R 1 - 34+95 R 1	116R - 197R	TV CABLE	COMCAST			X	
34+73 R 1 - 35+30 R 1	42R - 187R	T-BUR	LUMEN			X	
34+98 R 1 - 35+21 R 1	46R - 198R	TV CABLE	COMCAST			X	
35+08 R 1	42R	TEL PED	LUMEN			X	PED 201-9061
35+49 R 1 - 36+06 R 1	102R - 221R	T-BUR	LUMEN			X	
36+06 R 1	102R	TEL PED	LUMEN			X	PED 201-9007
36+07 R 1	102R	TEL PED	LUMEN			X	
36+08 R 1	104R	TEL HH	COMCAST			X	
36+08 R 1 - 36+35	12L - 104R	TV CABLE	COMCAST		X		WINE SHOP SERVICE, RETAINING WALL CONFLICT

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SHEET 80 OF 359

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UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
TH41_NB							
88+45 R 1 - 94+29 R 1	88L - 41L	P-BUR	CHASKA			X	
90+11 R 1 - 94+28 R 1	86L - 30R	P-BUR	CHASKA			X	
93+93 R 1 - 94+28 R 1	147L - 90L	P-BUR	CHASKA			X	
94+28 R 1 - 94+56 R 1	145L - 86L	P-BUR	CHASKA			X	
95+01 R 1	33R	P HH	CHASKA		X		REMOVE
97+38 R 1	33R	P HH	CHASKA		X		REMOVE
97+43 R 1 - 97+48 R 1	105L - 43L	P-BUR	CHASKA		X		REMOVE
97+43 R 1	43L	P HH	CHASKA		X		REMOVE
97+96 R 1 - 97+99 R 1	55L - 112R	P-BUR	CHASKA	X			RAISE; STRM 41-332 TO 41-319
97+98 R 1 - 98+05 R 1	111L - 55L	P-BUR	CHASKA			X	
100+99 R 1 - 102+52 R 1	189R	P-BUR	CHASKA			X	
101+11 R 1 - 101+20 R 1	54L - 48L	P-BUR	MNDOT			X	
101+15 R 1	39R	P HH	MNDOT	X			(1) RAISE/LOWER TO PROP GRADE
101+16 R 1 - 101+22 R 1	55L - 38R	P-BUR	MNDOT			X	
101+16 R 1 - 101+17 R 1	41R - 87R	P-BUR	CHASKA			X	
101+16 R 1 - 101+18 R 1	157R - 254R	P-BUR	CHASKA			X	
101+17 R 1 - 101+26 R 1	87R - 164R	P-BUR	CHASKA			X	
101+18 R 1 - 101+25 R 1	40R - 43R	P-BUR	MNDOT			X	
101+18 R 1 - 101+20 R 1	91L - 54L	P-BUR	CHASKA			X	
101+18 R 1	33R	TRAFFIC SIG LIGHT	MNDOT			X	
101+20 R 1 - 101+27 R 1	54L	P-BUR	MNDOT			X	
101+23 R 1	54L	TRAFFIC SIG LIGHT	MNDOT			X	
101+24 R 1 - 101+81 R 1	57L - 56L	P-BUR	MNDOT			X	
101+69 R 1	183R - 338R	P-BUR	CHASKA			X	
101+69 R 1 - 103+53 R 1	182R - 191R	P-BUR	CHASKA			X	
101+70 R 1 - 101+75 R 1	43R - 50R	P-BUR	MNDOT			X	
101+70 R 1	62R	P PED	MNDOT			X	
101+75 R 1	62R	P PED	MNDOT			X	
101+77 R 1 - 101+79 R 1	37R - 50R	P-BUR	MNDOT			X	
101+78 R 1 - 101+81 R 1	110R - 170R	P-BUR	CHASKA			X	
101+79 R 1 - 101+81 R 1	62L - 58L	P-BUR	MNDOT			X	
101+79 R 1	36R	TRAFFIC SIG LIGHT	MNDOT			X	
101+81 R 1 - 101+82 R 1	55L - 50L	P-BUR	MNDOT			X	
101+81 R 1 - 101+82 R 1	64R - 110R	P-BUR	CHASKA			X	
101+81 R 1	51L	TRAFFIC SIG LIGHT	MNDOT			X	
101+82 R 1 - 101+83 R 1	55L - 64R	P-BUR	MNDOT			X	
101+82 R 1	65R	P HH	MNDOT	X			(1) RAISE/LOWER TO PROP GRADE
101+83 R 1	57L	P HH	MNDOT	X			(1) RAISE/LOWER TO PROP GRADE
102+21 R 1 - 102+73 R 1	189R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+25 R 1 - 102+73 R 1	174R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+33 R 1 - 102+73 R 1	190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+36 R 1 - 102+73 R 1	190R - 294R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+37 R 1 - 102+48 R 1	91R - 92R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+48 R 1 - 102+73 R 1	92R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+48 R 1 - 102+53 R 1	92R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+48 R 1	92R	P POLE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+51 R 1 - 102+73 R 1	174R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+53 R 1 - 102+73 R 1	129R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+53 R 1 - 105+47 R 1	183R - 194R	P-BUR	CHASKA			X	
102+66 R 1 - 102+73 R 1	190R - 192R	P-BUR	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+66 R 1	192R	P PED	CHASKA		X		ALLEY PAVEMENT CONFLICT
102+73 R 1 - 103+22 R 1	190R - 296R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+73 R 1 - 103+06 R 1	92R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+73 R 1 - 103+64 R 1	190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+73 R 1 - 103+64 R 1	191R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.

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UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
102+73 R 1 - 103+63 R 1	189R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
102+73 R 1	190R	P POLE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+03 R 1 - 103+06 R 1	92R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+04 R 1 - 103+07 R 1	194R - 338R	P-BUR	CHASKA			X	
103+04 R 1	194R	L POLE	CHASKA			X	
103+06 R 1 - 103+12 R 1	92R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+37 R 1 - 103+64 R 1	135R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+38 R 1 - 103+64 R 1	116R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+40 R 1 - 103+64 R 1	116R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+53 R 1 - 103+64 R 1	185R - 191R	P-BUR	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+53 R 1	191R	P PED	CHASKA		X		ALLEY PAVEMENT CONFLICT
103+64 R 1 - 104+27 R 1	189R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+64 R 1	190R	P POLE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+82 R 1 - 104+33 R 1	91R - 109R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+86 R 1 - 104+33 R 1	82R - 109R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
103+86 R 1 - 103+90 R 1	200R - 202R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
104+27 R 1	201R	ANC	CHASKA		X		BURYING OHP PER CHASKA ELECT.
104+28 R 1 - 104+64 R 1	95R - 189R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
104+28 R 1 - 104+47 R 1	189R - 190R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
104+28 R 1	189R	P POLE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
104+32 R 1 - 104+33 R 1	82R - 109R	OVERHEAD ELECTRIC LINE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
104+33 R 1	109R	P POLE	CHASKA		X		BURYING OHP PER CHASKA ELECT.
104+95 R 1 - 105+00 R 1	99R - 281R	P-BUR	CHASKA			X	
105+47 R 1	188R	L POLE	CHASKA			X	
105+73 R 1 - 105+78 R 1	25R - 276R	P-BUR	CHASKA			X	
105+75 R 1 - 105+84 R 1	121R - 135R	P-BUR	CHASKA			X	
108+44 R 1 - 108+53 R 1	42R - 62R	P-BUR	CHASKA			X	
108+52 R 1 - 108+70 R 1	84R - 86R	P-BUR	CHASKA			X	
108+53 R 1 - 108+65 R 1	55R - 62R	P-BUR	MNDOT			X	
108+57 R 1 - 108+70 R 1	254R - 256R	P-BUR	CHASKA			X	
108+65 R 1 - 109+43 R 1	40R - 62R	P-BUR	MNDOT			X	
108+71 R 1 - 108+76 R 1	54L - 50L	P-BUR	MNDOT			X	
108+71 R 1	28R	P HH	MNDOT	X			(2) RAISE/LOWER TO PROP GRADE
108+72 R 1 - 108+77 R 1	53L - 26R	P-BUR	MNDOT			X	
108+73 R 1 - 108+89 R 1	28R - 36R	P-BUR	MNDOT			X	
108+77 R 1	54L	P HH	MNDOT	X			(2) RAISE/LOWER TO PROP GRADE
108+78 R 1 - 108+87 R 1	59L - 55L	P-BUR	MNDOT			X	
108+79 R 1 - 108+84 R 1	54L - 53L	P-BUR	MNDOT			X	
108+83 R 1	53L	TRAFFIC SIG LIGHT	MNDOT			X	
108+84 R 1 - 109+36 R 1	58L - 53L	P-BUR	MNDOT			X	
108+85 R 1	36R	TRAFFIC SIG LIGHT	MNDOT			X	
108+88 R 1 - 108+89 R 1	34R - 36R	P-BUR	MNDOT			X	
108+90 R 1	37R	P HH	MNDOT	X			(2) RAISE/LOWER TO PROP GRADE
109+37 R 1	57L	P HH	MNDOT	X			(2) RAISE/LOWER TO PROP GRADE
109+39 R 1 - 109+41 R 1	57L - 55L	P-BUR	MNDOT			X	
109+39 R 1 - 109+49 R 1	57L - 43L	P-BUR	MNDOT			X	
109+41 R 1 - 109+46 R 1	43R - 46R	P-BUR	MNDOT			X	
109+41 R 1 - 109+43 R 1	40R - 46R	P-BUR	MNDOT			X	
109+41 R 1	46R	P HH	MNDOT	X			(2) RAISE/LOWER TO PROP GRADE
109+43 R 1	40R	TRAFFIC SIG LIGHT	MNDOT			X	
109+43 R 1	55L	TRAFFIC SIG LIGHT	MNDOT			X	
109+43 R 1	50R	P PED	MNDOT			X	
109+43 R 1	54R	P PED	MNDOT			X	
109+44 R 1 - 109+48 R 1	45R - 56R	P-BUR	MNDOT			X	
109+44 R 1 - 110+73 R 1	168R - 190R	P-BUR	CHASKA			X	
109+46 R 1 - 109+47 R 1	35R - 43R	P-BUR	CHASKA			X	

(2) ADJUSTMENTS INCLUDED IN THE 4TH STREET SIGNAL REVISION

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SHEET 82 OF 359

UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
109+46 R 1	43R	P HH	CHASKA			X	
109+47 R 1 - 109+56 R 1	29R - 35R	P-BUR	CHASKA			X	
109+47 R 1	37R	P HH	CHASKA			X	
109+50 R 1	43L	P HH	CHASKA			X	
110+05 R 1 - 110+75 R 1	99R - 184R	P-BUR	CHASKA			X	
110+38 R 1 - 111+64 R 1	182R - 225R	P-BUR	CHASKA			X	
110+73 R 1	186R	P PED	CHASKA			X	
110+75 R 1 - 113+35 R 1	160R - 184R	P-BUR	CHASKA			X	
111+31 R 1 - 111+37 R 1	154R - 169R	P-BUR	CHASKA			X	
111+35 R 1 - 111+36 R 1	108R - 133R	P-BUR	CHASKA			X	
111+59 R 1 - 111+76 R 1	66R - 182R	P-BUR	CHASKA			X	
111+64 R 1 - 111+96 R 1	182R - 286R	P-BUR	CHASKA			X	
111+66 R 1 - 111+70 R 1	91L - 84L	P-BUR	CHASKA			X	
111+70 R 1 - 112+46 R 1	122L - 68L	P-BUR	CHASKA			X	
111+76 R 1 - 112+14 R 1	49R - 66R	P-BUR	CHASKA			X	57
111+76 R 1 - 112+15 R 1	66R - 96R	P-BUR	CHASKA			X	
111+86 R 1	161R	P PED	CHASKA			X	
111+86 R 1	161R - 181R	P-BUR	CHASKA			X	
111+86 R 1	181R	P PED	CHASKA		X		REMOVE, IN ALLEY PAVEMENT
111+96 R 1 - 112+10 R 1	264R - 284R	P-BUR	CHASKA			X	
111+96 R 1 - 112+17 R 1	235R - 264R	P-BUR	CHASKA			X	
113+00 R 1 - 113+03 R 1	48R - 180R	P-BUR	CHASKA			X	
113+13 R 1 - 113+33 R 1	34R - 156R	P-BUR	CHASKA			X	
113+20 R 1 - 113+40 R 1	166R - 179R	P-BUR	CHASKA			X	3 PHASE
113+22 R 1 - 113+23 R 1	108L - 34R	P-BUR	CHASKA	X			RAISE; STRM 41-202 TO 41-200
113+35 R 1 - 113+40 R 1	157R	P-BUR	CHASKA			X	3 PHASE
113+35 R 1	157R	P PED	CHASKA			X	
113+35 R 1 - 113+40 R 1	206R - 207R	P-BUR	CHASKA		X		STREET LIGHT WIRE
113+35 R 1	206R	L POLE	CHASKA		X		
113+35 R 1 - 113+40 R 1	153R - 156R	P-BUR	CHASKA			X	SERVICE
113+37 R 1 - 113+40	133R - 134R	P-BUR	CHASKA			X	SERVICE
116+19 R 1 - 116+27 R 1	133L - 64L	P-BUR	CHASKA			X	
116+31 R 1 - 119+91 R 1	133L - 61L	P-BUR	CHASKA			X	
117+01 R 1 - 117+04 R 1	132L - 66R	OVERHEAD ELECTRIC LINE	XCEL			X	TRANSMISSION 115 KV
117+15 R 1 - 117+22 R 1	132L - 70R	OVERHEAD ELECTRIC LINE	CHASKA			X	
119+32 R 1 - 119+34 R 1	27R - 54R	P-BUR	CHASKA			X	
119+32 R 1 - 119+39 R 1	54R - 74R	P-BUR	CHASKA			X	
CSAH61_EB							
20+60 R 1 - 24+29 R 1	47L - 101R	OVERHEAD ELECTRIC LINE	CHASKA			X	
20+63 R 1 - 24+28 R 1	66L - 105R	OVERHEAD ELECTRIC LINE	XCEL			X	TRANSMISSION 115 KV
20+90 R 1	66L	P POLE	XCEL			X	TRANSMISSION 115 KV
22+32 R 1 - 22+76 R 1	34R - 78R	P-BUR	CHASKA		X		
22+63 R 1 - 23+60 R 1	67R - 82R	P-BUR	CHASKA		X		
22+97 R 1 - 23+03 R 1	5L - 1L	P-BUR	CHASKA			X	
22+98 R 1 - 23+06 R 1	42R	P-BUR	CHASKA			X	
23+15 R 1 - 23+17 R 1	137R - 138R	P-BUR	CHASKA			X	
23+16 R 1 - 23+76 R 1	142L - 47L	P-BUR	CHASKA	X			RAISE; STRM 61-214 TO 61-212
23+32 R 1 - 23+69 R 1	86R - 157R	P-BUR	CHASKA			X	
23+40 R 1 - 23+55 R 1	135R - 149R	P-BUR	CHASKA			X	
23+49 R 1 - 23+55 R 1	149R - 163R	P-BUR	CHASKA			X	
23+53 R 1 - 23+77 R 1	88R - 149R	P-BUR	CHASKA			X	
23+55 R 1 - 23+90 R 1	133R - 149R	P-BUR	CHASKA			X	
23+55 R 1 - 23+62 R 1	149R - 167R	P-BUR	CHASKA			X	
23+55 R 1 - 23+99 R 1	99R - 149R	P-BUR	CHASKA			X	
23+60 R 1 - 23+99 R 1	82R - 91R	P-BUR	CHASKA			X	

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SHEET 83 OF 359

UTILITIES TABULATION

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				ADJUST	RELOCATE	LEAVE AS IS	
23+76 R 1 - 23+80 R 1	154L - 142L	P-BUR	CHASKA			X	
23+80 R 1 - 24+14 R 1	18L - 49R	P-BUR	CHASKA			X	
23+87 R 1	107R	P PED	CHASKA			X	
23+90 R 1 - 23+91 R 1	106R - 132R	P-BUR	CHASKA			X	
23+91 R 1 - 27+00 R 1	106R - 130R	P-BUR	CHASKA			X	
23+98 R 1 - 28+57 R 1	77R - 98R	P-BUR	CHASKA		X		CONFLICT 61-116 TO 115, 61-109 TO 61-105
24+14 R 1 - 24+36 R 1	63L - 18L	P-BUR	CHASKA			X	
24+17 R 1 - 28+70 R 1	81R - 128R	P-BUR	CHASKA		X		CONFLICT 61-116 TO 115, 61-109 TO 61-105
24+28 R 1	105R	P POLE	XCEL			X	TRANSMISSION 115 KV
24+29 R 1 - 32+01 R 1	97R - 108R	OVERHEAD ELECTRIC LINE	XCEL			X	TRANSMISSION 115 KV
24+36 R 1 - 24+59 R 1	133L - 63L	P-BUR	CHASKA			X	
25+31 R 1 - 26+52 R 1	118L - 75L	P-BUR	CHASKA			X	
25+65 R 1 - 25+81 R 1	112R - 113R	P-BUR	CHASKA			X	
27+00 R 1 - 28+25 R 1	130R - 133R	P-BUR	CHASKA			X	
27+86 R 1	109R	P POLE	XCEL			X	TRANSMISSION 115 KV
28+25 R 1 - 28+52 R 1	133R - 134R	P-BUR	CHASKA			X	
28+42 R 1	121R	P PED	CHASKA			X	
28+46 R 1 - 28+81 R 1	131R - 170R	P-BUR	CHASKA			X	
28+52 R 1 - 28+56 R 1	95R - 127R	P-BUR	CHASKA		X		CONFLICT 61-109 TO 61-105
28+54 R 1	122R	P PED	CHASKA			X	
28+58 R 1 - 35+17 R 1	114R - 126R	OVERHEAD ELECTRIC LINE	CHASKA			X	
28+69 R 1	120R	P PED	CHASKA			X	
28+73 R 1 - 29+31 R 1	65L - 114R	P-BUR	CHASKA		X		CONFLICT STORM POND; 61-109 TO 61-105
28+74 R 1 - 29+36 R 1	114R - 116R	OVERHEAD ELECTRIC LINE	CHASKA			X	
28+74 R 1	114R	P POLE	CHASKA			X	
28+77 R 1 - 28+82 R 1	135R - 170R	P-BUR	CHASKA			X	
28+77 R 1 - 28+90 R 1	135R - 169R	P-BUR	CHASKA			X	
28+78 R 1	124R	P PED	CHASKA			X	
28+89 R 1	125R	P PED	CHASKA			X	
28+90 R 1	116R	P POLE	CHASKA			X	
29+10 R 1	73L	ANC	CHASKA			X	
29+15 R 1	73L	ANC	CHASKA			X	
29+31 R 1 - 31+38 R 1	72L - 65L	P-BUR	CHASKA			X	
29+34 R 1 - 35+03 R 1	73L - 66L	OVERHEAD ELECTRIC LINE	CHASKA			X	
29+34 R 1 - 30+80 R 1	73L	OVERHEAD ELECTRIC LINE	CHASKA			X	
29+34 R 1	73L	P POLE	CHASKA			X	
29+36 R 1	114R	P POLE	CHASKA			X	
31+32 R 1	70L	P POLE	CHASKA			X	
31+38 R 1 - 31+66 R 1	117L - 72L	P-BUR	CHASKA			X	
31+38 R 1 - 32+17 R 1	117L - 72L	P-BUR	CHASKA			X	
31+38 R 1	69L	P PED	CHASKA			X	
32+01 R 1 - 32+42 R 1	108R - 142R	OVERHEAD ELECTRIC LINE	XCEL			X	TRANSMISSION 115 KV
32+02 R 1	103R	P POLE	XCEL			X	TRANSMISSION 115 KV
32+85 R 1 - 33+29 R 1	103R - 143R	P-BUR	CHASKA			X	
33+25 R 1	65L	P POLE	CHASKA			X	
TRAIL UNDER							
30+18 R 1 - 31+46 R 1	15L - 98R	P-BUR	CHASKA		X		
30+24 R 1 - 31+38 R 1	47R - 49R	P-BUR	CHASKA			X	
30+43 R 1 - 32+08 R 1	155L - 139L	P-BUR	CHASKA			X	
30+44 R 1 - 31+37 R 1	22R - 50R	P-BUR	CHASKA			X	
30+74 R 1 - 31+41 R 1	109L - 103L	P-BUR	CHASKA			X	
31+23 R 1 - 31+41 R 1	109L - 56L	P-BUR	CHASKA			X	
31+38 R 1 - 31+95 R 1	39L - 66R	P-BUR	CHASKA		X		

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UTILITIES TABULATION

STATION TO STATION	OFFSET (FT)	DESCRIPTION	OWNER	ACTION			REMARKS
				ADJUST	RELOCATE	LEAVE AS IS	
31+38 R 1	47R	P PED	CHASKA			X	
31+42 R 1 - 32+22 R 1	59R - 96R	P-BUR	CHASKA			X	
31+45 R 1 - 31+98 R 1	42L - 49R	P-BUR	CHASKA		X		
31+45 R 1	49R	P PED	CHASKA			X	
31+54 R 1	49R	P PED	CHASKA			X	
31+57 R 1	56R	P PED	CHASKA			X	
31+58 R 1 - 32+74 R 1	157L - 91L	P-BUR	CHASKA			X	
31+95 R 1 - 32+33 R 1	195L - 39L	P-BUR	CHASKA			X	
31+95 R 1	39L	P PED	CHASKA			X	
32+00 R 1 - 32+64 R 1	40L - 34R	P-BUR	CHASKA		X		
32+00 R 1 - 32+74 R 1	91L - 40L	P-BUR	CHASKA			X	
32+22 R 1 - 32+44 R 1	96R - 105R	P-BUR	CHASKA			X	
32+31 R 1 - 32+64 R 1	34R - 70R	P-BUR	CHASKA			X	
32+64 R 1 - 32+93 R 1	34R - 69R	P-BUR	CHASKA			X	
32+74 R 1 - 33+36 R 1	91L - 80L	P-BUR	CHASKA			X	
32+86 R 1 - 32+90 R 1	178L - 176L	P-BUR	CHASKA			X	
34+03 R 1 - 34+88 R 1	102R - 192R	P-BUR	CHASKA			X	
34+25 R 1 - 34+90 R 1	110R - 194R	P-BUR	CHASKA			X	SERVICE
34+71 R 1 - 34+78 R 1	150R - 186R	P-BUR	CHASKA			X	SERVICE
34+77 R 1 - 35+08 R 1	38R - 70R	P-BUR	CHASKA			X	SERVICE
35+08 R 1 - 35+39 R 1	19L - 38R	P-BUR	CHASKA		X		
34+93 R 1 - 35+08 R 1	38R - 196R	P-BUR	CHASKA			X	3 PHASE
35+01 R 1 - 36+84 R 1	4L - 35R	P-BUR	CHASKA		X		
35+04 R 1	35R	P PED	CHASKA			X	
35+02 R 1 - 35+34 R 1	38R - 199R	P-BUR	CHASKA			X	3 PHASE
35+08 R 1	38R	P PED	CHASKA			X	
35+37 - 35+66	153R - 216R	P-BUR	CHASKA		X		STREET LIGHT WIRE
35+08 R 1 - 35+70 R 1	38R - 99R	P-BUR	CHASKA			X	
35+66 R 1 - 35+70 R 1	99R - 153R	P-BUR	CHASKA		X		STREET LIGHT WIRE
35+66 R 1	153R	L POLE	CHASKA		X		STREET LIGHT
35+70 R 1 - 35+93 R 1	99R - 124R	P-BUR	CHASKA			X	SERVICE
35+70 R 1 - 36+98 R 1	93R - 99R	P-BUR	CHASKA			X	LIGHT FEED TO WALNUT
35+70 R 1	99R	P HH	CHASKA	X			ADJUST GRADE

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				ADJUST	RELOCATE	LEAVE AS IS	
TH41_NB							
95+27 R 1 - 97+41 R 1	91L - 55L	GAS	CENTERPOINT	X			SERVICE-POTENTIAL CONFLICT STRM 41-306.2 TO 41-306 (PIPE)
95+62 R 1 - 95+85 R 1	68R - 75R	GAS	CENTERPOINT			X	SERVICE
97+40 R 1 - 97+44 R 1	105L - 50L	GAS	CENTERPOINT			X	2"
100+99 R 1 - 101+15 R 1	176R	GAS	CENTERPOINT			X	2"
100+99 R 1 - 101+15 R 1	210R	GAS	CENTERPOINT			X	SERVICE
101+02 R 1 - 101+15 R 1	216R - 218R	GAS	CENTERPOINT			X	SERVICE
101+12 R 1 - 101+15 R 1	88L - 251R	GAS	CENTERPOINT		X		4" - POTENTIAL CONFLICT STRM 41-354 TO 41-348 (PIPE); 41-353 TO 41-352 (PIPE); 41-348, 41-350, & 41-352 (DIST. TO STRUCTURE)
101+15 R 1 - 104+93 R 1	179R - 185R	GAS	CENTERPOINT			X	2"
101+64 R 1 - 104+94 R 1	175R - 190R	GAS	CENTERPOINT			X	SERVICE
102+02 R 1	177R - 190R	GAS	CENTERPOINT			X	SERVICE
102+04 R 1	174R - 181R	GAS	CENTERPOINT			X	SERVICE
102+96 R 1 - 103+07 R 1	90R - 178R	GAS	CENTERPOINT			X	SERVICE
102+99 R 1	64R - 182R	GAS	CENTERPOINT			X	SERVICE
103+31 R 1 - 103+40 R 1	97R - 183R	GAS	CENTERPOINT			X	SERVICE
103+43 R 1	139R - 183R	GAS	CENTERPOINT			X	SERVICE
103+74 R 1 - 103+83 R 1	92R - 115R	GAS	CENTERPOINT			X	SERVICE
103+81 R 1 - 103+83 R 1	115R - 184R	GAS	CENTERPOINT			X	SERVICE
104+02 R 1 - 104+03 R 1	92R - 184R	GAS	CENTERPOINT			X	SERVICE
104+36 R 1 - 104+37 R 1	185R - 216R	GAS	CENTERPOINT			X	SERVICE
104+40 R 1 - 104+42 R 1	112R - 185R	GAS	CENTERPOINT			X	SERVICE
104+93 R 1	185R - 264R	GAS	CENTERPOINT			X	2"
109+91 R 1 - 112+79 R 1	174R - 178R	GAS	CENTERPOINT			X	IN PLACE OUT OF SERVICE 4" STEEL
110+24 R 1 - 112+60 R 1	165R - 176R	GAS	CENTERPOINT			X	2" PE CL-2
110+16 R 1 - 110+27 R 1	92R - 178R	GAS	CENTERPOINT			X	SERVICE
110+81 R 1 - 111+33 R 1	176R - 234R	GAS	CENTERPOINT			X	SERVICE
111+39 R 1 - 111+43 R 1	70R - 176R	GAS	CENTERPOINT			X	SERVICE
111+96 R 1 - 112+04 R 1	114R - 175R	GAS	CENTERPOINT			X	SERVICE
112+48 R 1 - 112+58 R 1	122L - 18R	GAS	CENTERPOINT		X		6" PE - POTENTIAL CONFLICTS; WATERMAIN (DEPTH OF GAS VARIES FROM 60" AT CURB TO 90" AT CENTERLINE), STRM 41-212 TO 41-200 (PIPE), 41-216 TO 41-99 (PIPE)
112+58 R 1 - 112+60 R 1	18R - 62R	GAS	CENTERPOINT			X	IN PLACE OUT OF SERVICE 6" PE
112+48 R 1 - 113+63 R 1	117L - 70L	GAS	CENTERPOINT			X	SERVICE
112+60 R 1 - 112+78 R 1	58R - 59R	GAS	CENTERPOINT			X	IN PLACE OUT OF SERVICE 4"
112+60 R 1 - 113+27 R 1	176R - 184R	GAS	CENTERPOINT			X	2" PE
112+55 R 1 - 112+66 R 1	18R - 281R	GAS	CENTERPOINT			X	6" PE CL-2
112+78 R 1 - 112+79 R 1	56R - 171R	GAS	CENTERPOINT			X	IN PLACE OUT OF SERVICE 4" STEEL
112+79 R 1 - 113+25 R 1	170R - 176R	GAS	CENTERPOINT			X	IN PLACE OUT OF SERVICE 2"
112+78 R 1 - 112+79 R 1	171R - 280R	GAS	CENTERPOINT			X	IN PLACE OUT OF SERVICE 4" STEEL
113+25 R 1 - 113+40 R 1	176R	GAS	CENTERPOINT			X	2"
113+40 R 1 - 113+43 R 1	85L - 73L	GAS	CENTERPOINT			X	SERVICE
116+41 R 1 - 116+44 R 1	133L - 62R	GAS	CENTERPOINT			X	4"
123+39 R 1 - 123+61 R 1	106L - 86R	GAS	CENTERPOINT			X	HIGH PRESSURE - 12" STEEL

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CSAH61_EB							
20+56 R 1 - 23+34 R 1	14R - 25R	GAS	CENTERPOINT	X			4" - POTENTIAL CONFLICT STRM 61-207 TO 61-116 (PIPE)
21+88 R 1 - 21+90 R 1	23R - 58R	GAS	CENTERPOINT		X		SERVICE. POTENTIAL CONFLICT STRM 61-122 TO 61-120 (PIPE)
22+94 R 1 - 23+32 R 1	31R - 144R	GAS	CENTERPOINT			X	IN PLACE OUT OF SERVICE 4" STEEL
23+32 R 1 - 23+78 R 1	89L - 31R	GAS	CENTERPOINT		X		4" STEEL - POTENTIAL CONFLICT STRM 61-116 TO 61-115 (PIPE), PARELLELING ST 61-208 TO 61-116 (PIPE AND STRUCTURES)
23+33 R 1 - 23+92	28R - 33R	GAS	CENTERPOINT			X	4" PE CL-6
23+33 R 1	25R	GAS VALVE	CENTERPOINT	X			RAISE/LOWER TO PROP GRADE
23+43 R 1 - 23+93 R 1	30R - 161R	GAS	CENTERPOINT		X		4" PE CL-6 - POTENTIAL CONFLICT STRM 61+116 TO 61-115 (PIPE)
23+78 R 1 - 31+18 R 1	89L - 60L	GAS	CENTERPOINT			X	6" STEEL
23+78 R 1 - 24+03 R 1	148L - 89L	GAS	CENTERPOINT			X	4" STEEL
24+92 R 1 - 24+95	86L - 72L	GAS	CENTERPOINT			X	SERVICE
26+12 R 1 - 26+18 R 1	93L - 33R	GAS	CENTERPOINT			X	HIGH PRESSURE 12" STEEL
26+18 R 1 - 30+36 R 1	33R - 46R	GAS	CENTERPOINT		X		HIGH PRESSURE 12" STEEL - POTENTIAL CONFLICT STRM 61-112 TO 61-110 (PIPE), STRM 61-108 TO 61-107 (PIPE), 61-101 TO 61-99 (PIPE)
26+19 R 1 - 26+37 R 1	119L - 93L	GAS	CENTERPOINT			X	HIGH PRESSURE 12" STEEL
29+54 R 1 - 29+60 R 1	116L - 61L	GAS	CENTERPOINT			X	2"
30+36 R 1 - 32+48 R 1	46R - 49R	GAS	CENTERPOINT		X		HIGH PRESSURE 12" STEEL - POTENTIAL CONFLICT STRM FES 61-B3
31+18 R 1 - 35+05 R 1	60L - 46L	GAS	CENTERPOINT			X	6" STEEL
32+48 R 1 - 35+12 R 1	49R - 53R	GAS	CENTERPOINT			X	HIGH PRESSURE 12" STEEL
TRAIL UNDER							
30+00 R 1 - 30+63 R 1	146L - 173L	GAS	CENTERPOINT			X	
30+61 R 1 - 30+64 R 1	137L - 146L	GAS	CENTERPOINT			X	
30+64 R 1	146L	GAS VALVE	CENTERPOINT	X			RAISE/LOWER TO PROP GRADE
30+59 R 1 - 32+47 R 1	111L - 138L	GAS	CENTERPOINT		X		2" STEEL - POTENTIAL CONFLICT SAN AND WM
31+46 R 1 - 31+50 R 1	132L - 145L	GAS	CENTERPOINT			X	SERVICE
32+47 R 1 - 32+85 R 1	111L - 179L	GAS	CENTERPOINT		X		SERVICE - POTENTIAL CONFLICT SAN
32+47 R 1 - 33+31 R 1	93L - 111L	GAS	CENTERPOINT		X		SERVICE - POTENTIAL CONFLICT SAN
34+24 R 1 - 35+11 R 1	159R - 200R	GAS	CENTERPOINT			X	SERVICE
34+04 R 1 - 35+48 R 1	46R - 49R	GAS	CENTERPOINT			X	SERVICE
35+09 R 1 - 35+48 R 1	49R - 204R	GAS	CENTERPOINT			X	2"
36+20 R 1 - 36+44 R 1	14L - 30L	GAS	CENTERPOINT			X	SERVICE

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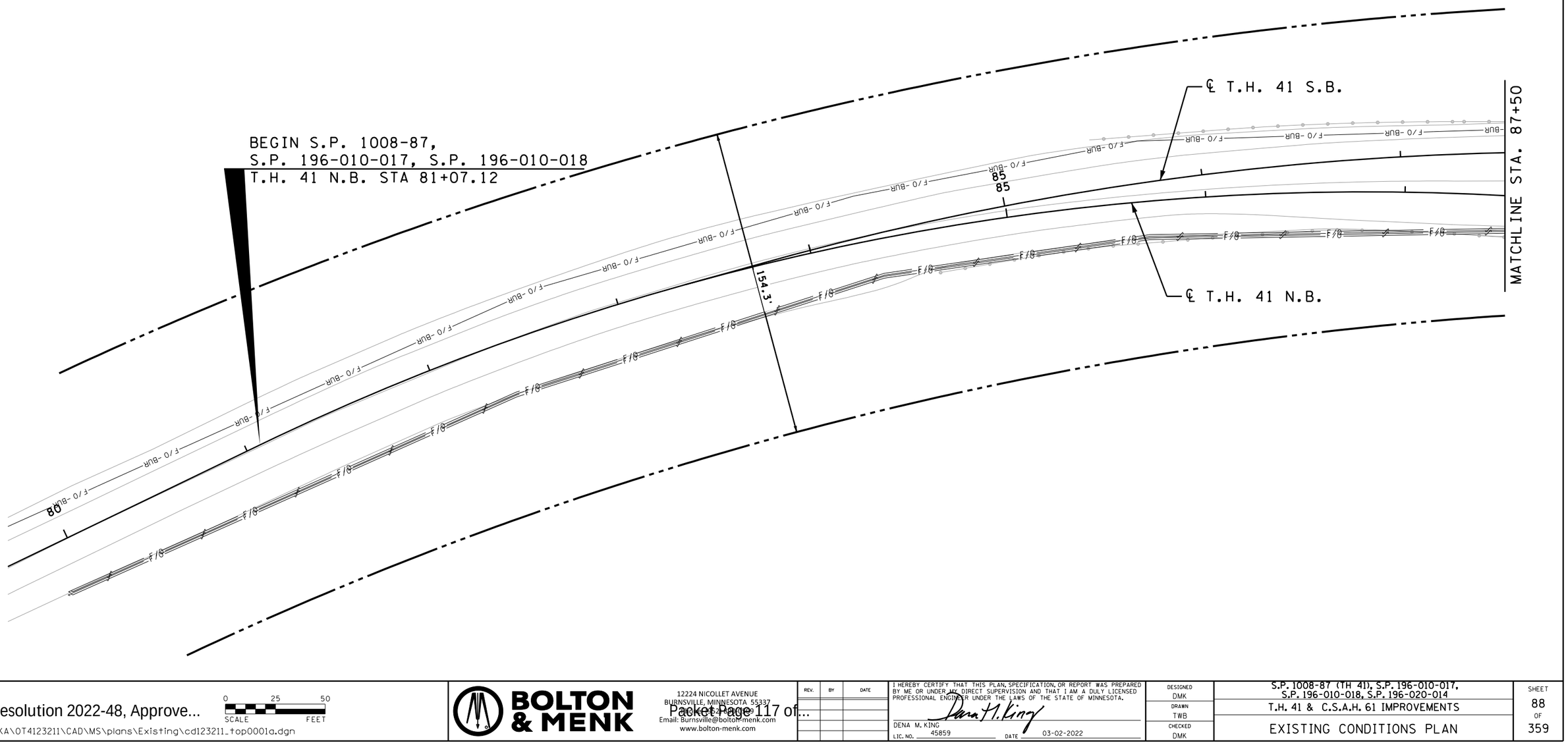
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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED BL
DRAWN TWB
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
EXISTING UTILITY TABULATION

SHEET 87 OF 359



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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
EXISTING CONDITIONS PLAN

SHEET 88 OF 359

MINNESOTA RIVER

℄ T.H. 41 S.B.

EX. BRIDGE NO. 10012

℄ T.H. 41 N.B.

MINNESOTA RIVER

MATCHLINE STA. 87+50

MATCHLINE STA. 94+00

152.5'

90

92

F/O

F/O -BUR

F/O -BUR-BUR

P-BUR

1

SPECIFIC NOTES:

1 CULTURAL RESOURCE MONITORING IS REQUIRED WITHIN AND ADJACENT TO THE AREA BOUNDARIES AS SHOWN IN GRAY SHADING. SEE SPECIAL PROVISIONS.

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S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

EXISTING CONDITIONS PLAN

SHEET 89 OF 359

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7.B Adopt Resolution 2022-48, Approve...

Packet Page 118 of...

Page 90 of...

SPECIFIC NOTES:

1. CULTURAL RESOURCE MONITORING IS REQUIRED WITHIN AND ADJACENT TO THE AREA BOUNDARIES AS SHOWN IN GRAY SHADING. SEE SPECIAL PROVISIONS.

W 1ST ST

E 1ST ST

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 94+00

MATCHLINE STA. 100+90

SCALE 0 25 50 FEET

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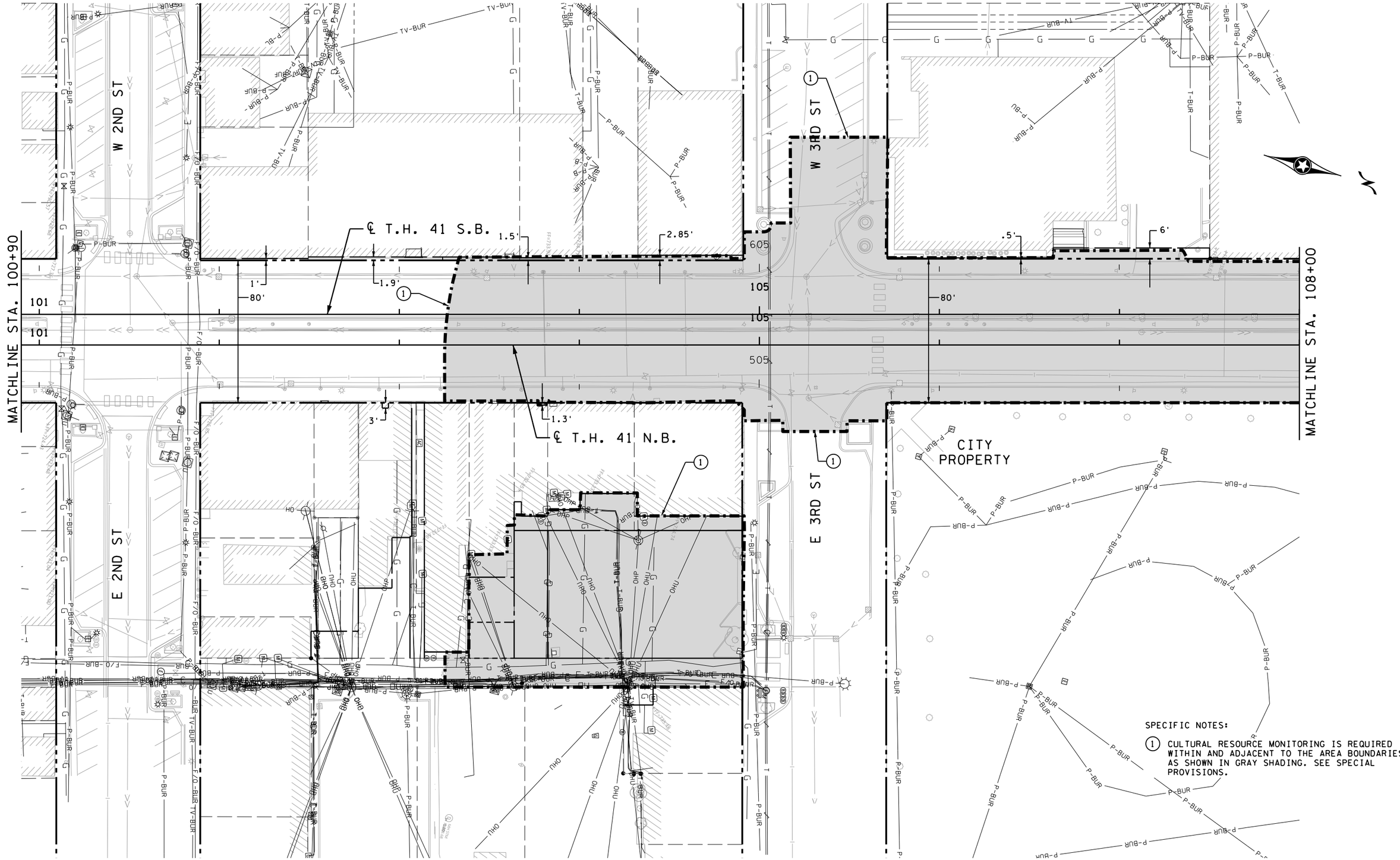
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EXISTING CONDITIONS PLAN

SHEET 90 OF 359

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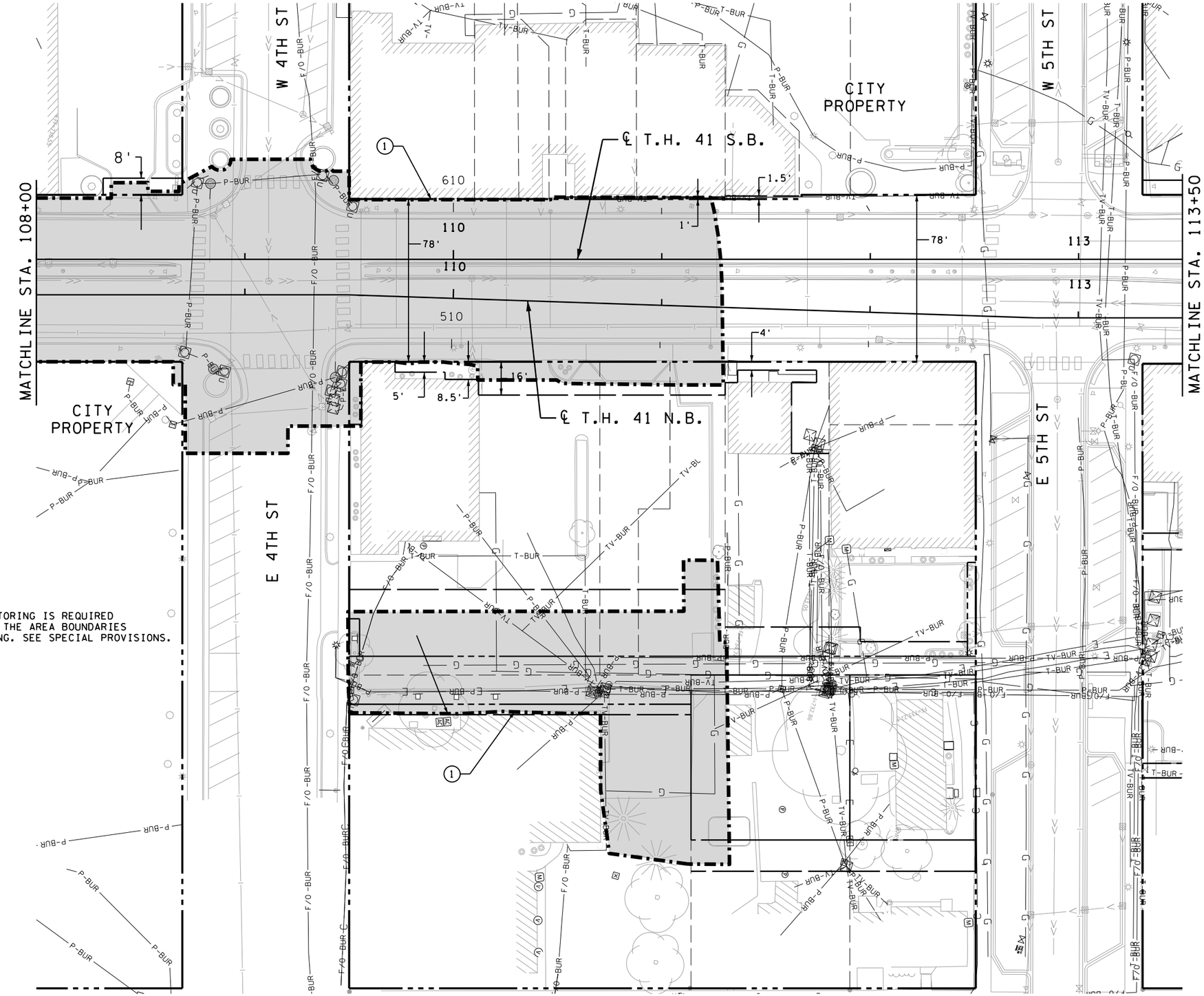
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
EXISTING CONDITIONS PLAN

SHEET 91 OF 359

SPECIFIC NOTES:

1. CULTURAL RESOURCE MONITORING IS REQUIRED WITHIN AND ADJACENT TO THE AREA BOUNDARIES AS SHOWN IN GRAY SHADING. SEE SPECIAL PROVISIONS.



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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
EXISTING CONDITIONS PLAN

SHEET 92 OF 359

BEGIN S.P. 196-020-014
C.S.A.H. 61 E.B.
STA 18+38.82

CITY
PROPERTY

℄ PEDESTRIAN
UNDERPASS

℄ T.H. 41 S.B.

MATCHLINE STA. 113+50

MATCHLINE STA. 118+50

MATCHLINE STA 22+20

℄ T.H. 41 N.B.

℄ C.S.A.H. 61 W.B.

℄ C.S.A.H. 61 E.B.

10'
7'
81'
83'
11'
114
115
19
20
35

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
EXISTING CONDITIONS PLAN

SHEET 93 OF 359

CITY PROPERTY

CITY PROPERTY

END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 118+50

WALNUT ST

620

520

98'

90'

92'

120

125

20'

26.3'

F/O -BUR

P-BUR

T-BUR

T-V-BUR

OHP

G

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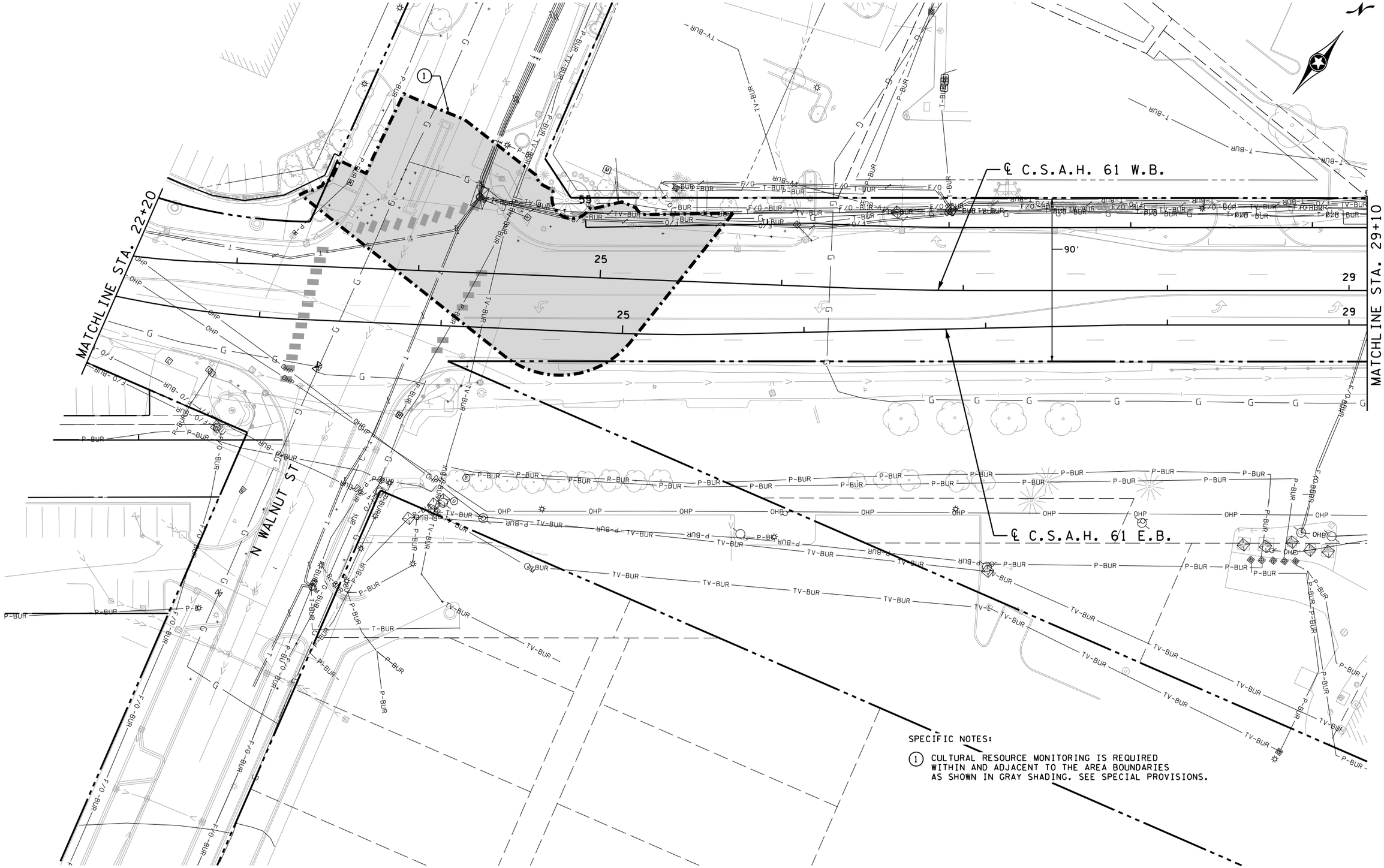
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EXISTING CONDITIONS PLAN

SHEET 94 OF 359



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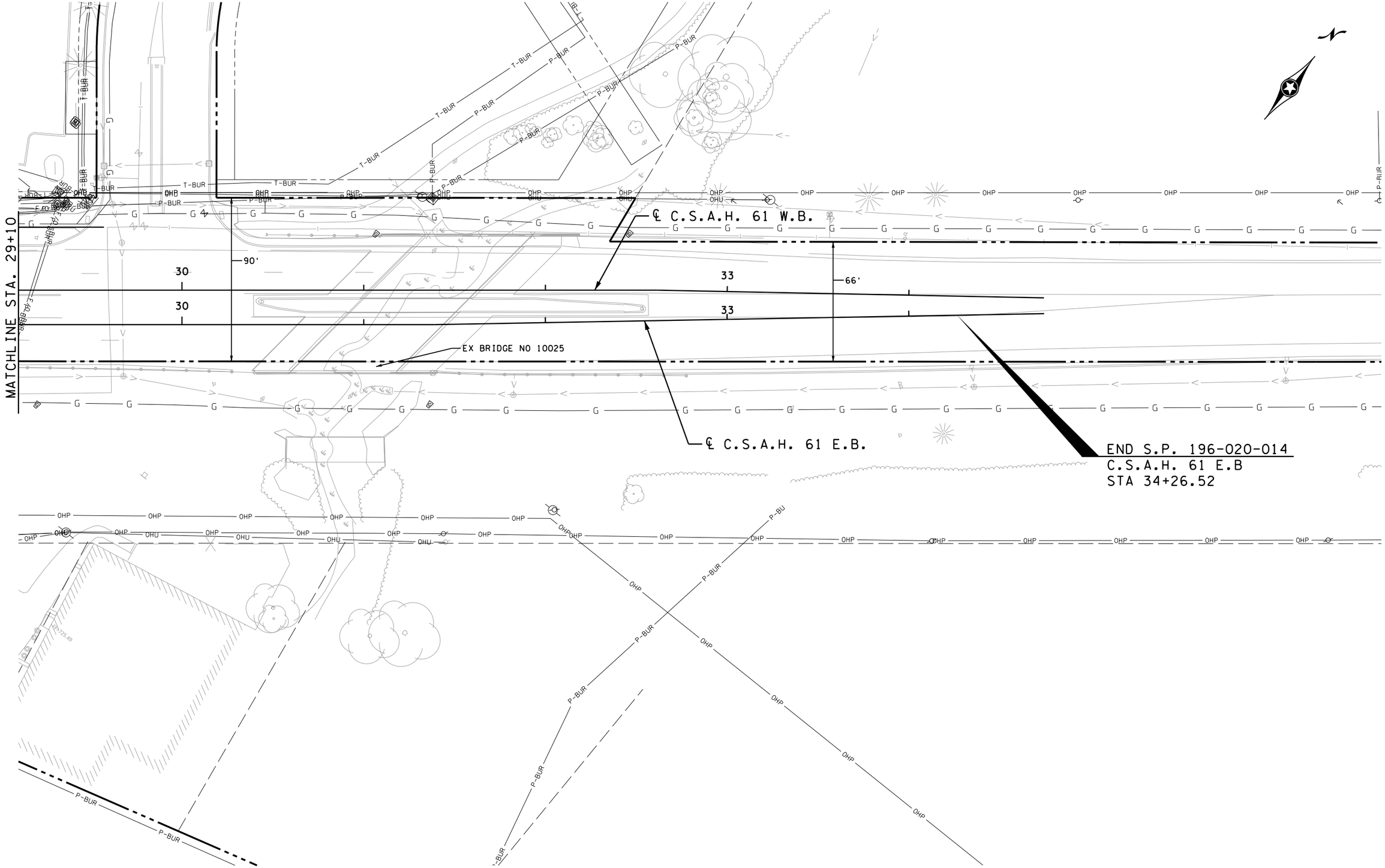
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EXISTING CONDITIONS PLAN

SHEET 95 OF 359



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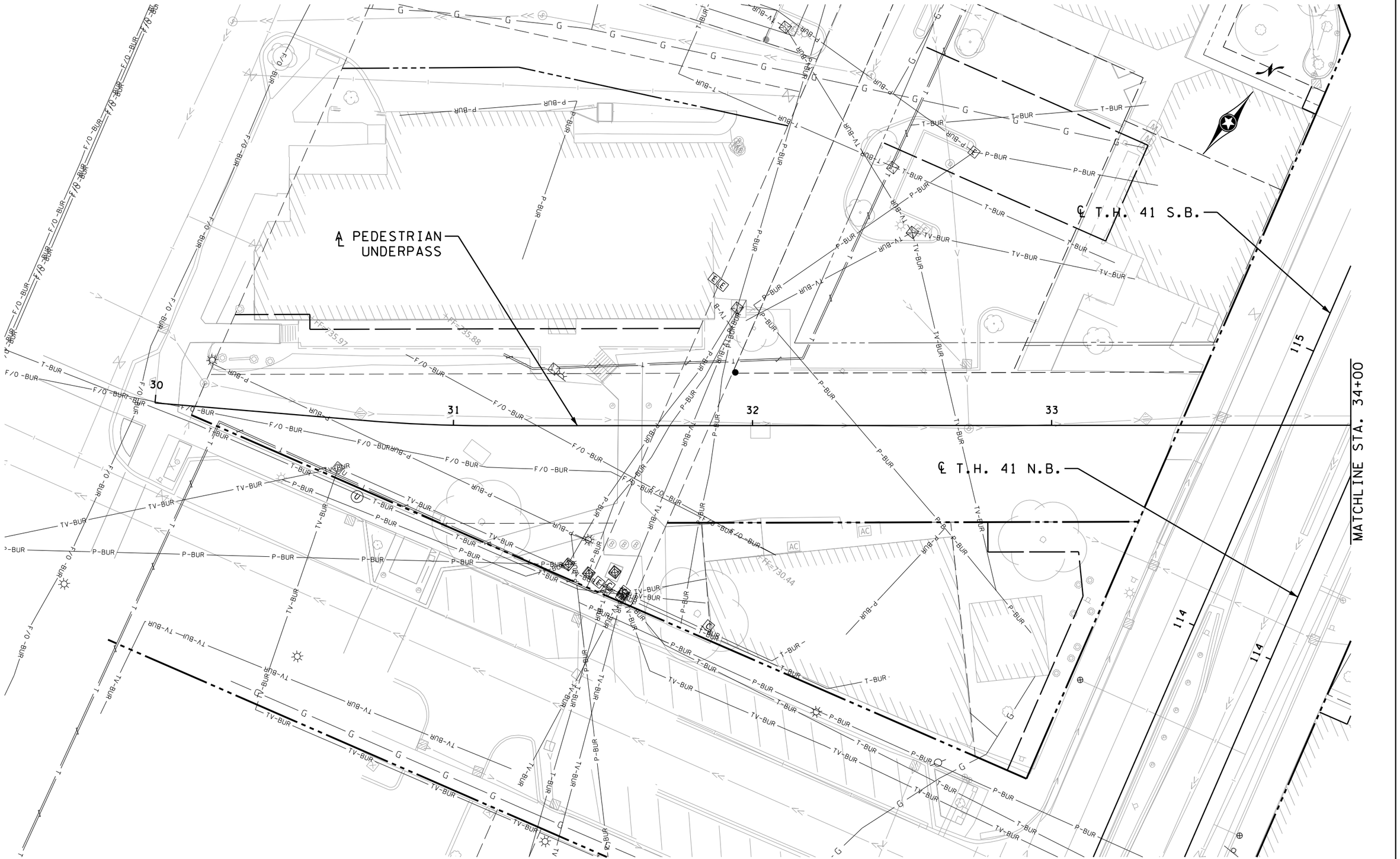
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EXISTING CONDITIONS PLAN

SHEET 96 OF 359



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EXISTING CONDITIONS PLAN

SHEET 97 OF 359

℄ T.H. 41 S.B.

℄ C.S.A.H. 61 W.B.

℄ C.S.A.H. 61 E.B.

℄ PEDESTRIAN UNDERPASS

MATCHLINE STA. 34+00

N WALNUT ST

35 36 37

116 116 115

P-BUR F/O-BUR T-BUR TV-BUR G OHP AC

SCALE 0 15 30 FEET

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CHECKED DMK

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EXISTING CONDITIONS PLAN

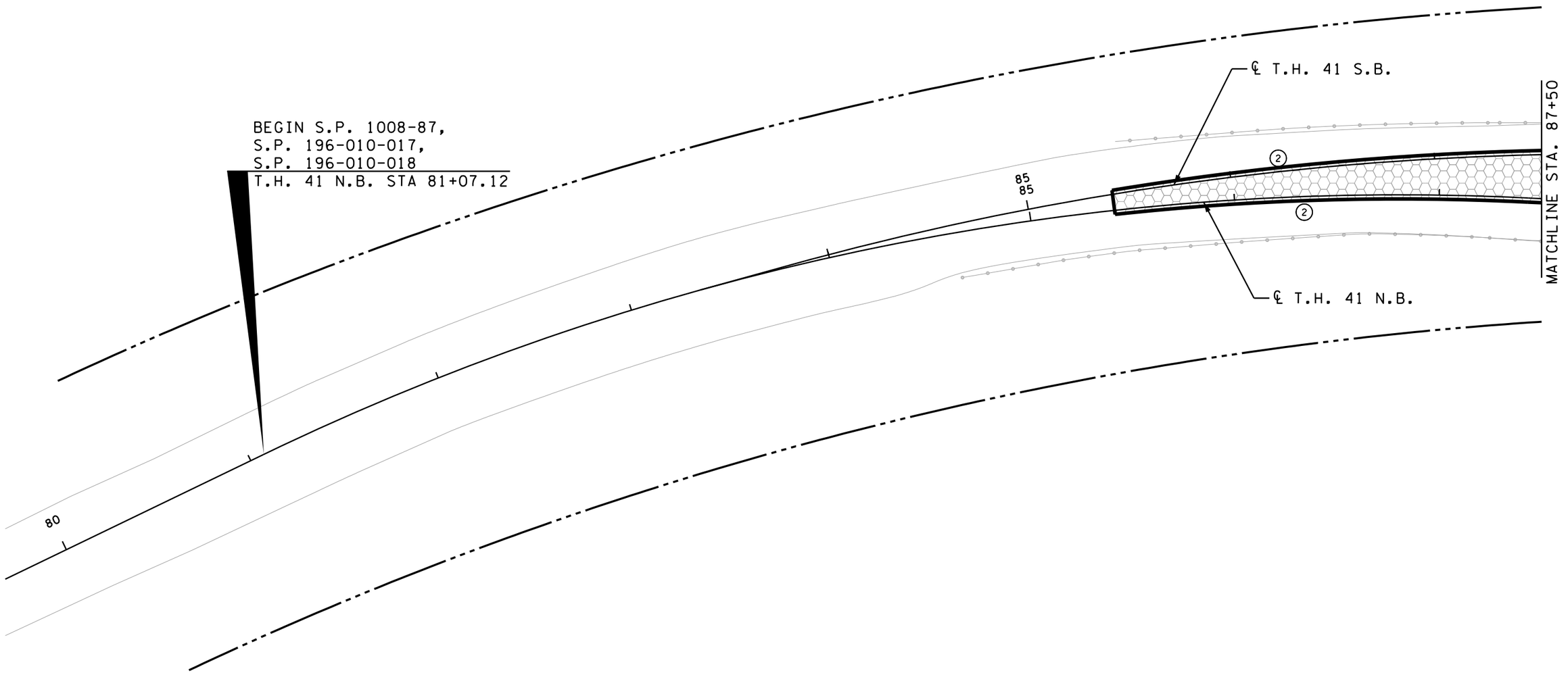
SHEET 98 OF 359

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
- (4) REMOVE LIGHTING UNIT/ REMOVE LIGHT FOUNDATION
- (5) REMOVE MANHOLE
- (6) REMOVE GATE VALVE AND BOX
- (7) REMOVE HYDRANT
- REMOVE SEWER PIPE (SANITARY)
- REMOVE WATERMAIN
- REMOVE CONCRETE CURB AND GUTTER
- REMOVE CONCRETE CURB
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.



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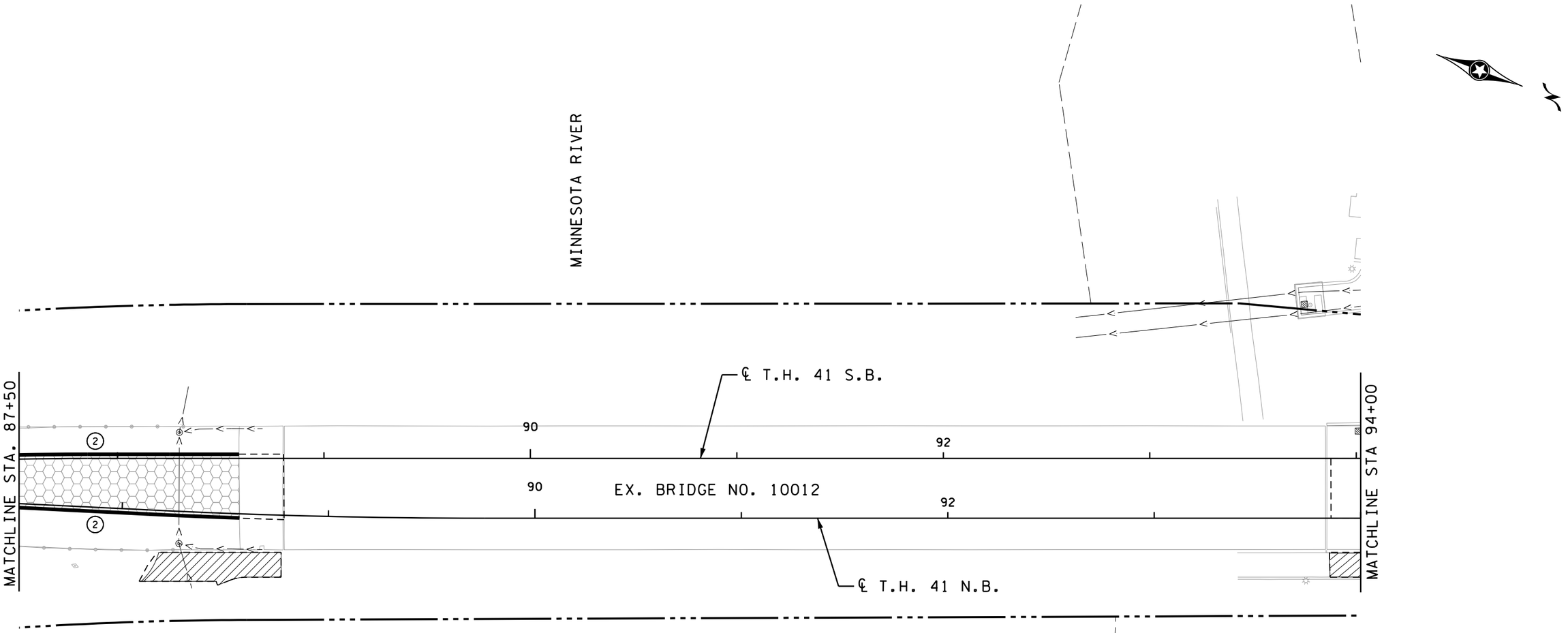
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REMOVAL PLAN

SHEET 99 OF 359

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LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
- (4) REMOVE LIGHTING UNIT/ REMOVE LIGHT FOUNDATION
- (5) REMOVE MANHOLE
- (6) REMOVE GATE VALVE AND BOX
- (7) REMOVE HYDRANT
- REMOVE SEWER PIPE (SANITARY)
- REMOVE WATERMAIN
- REMOVE CONCRETE CURB AND GUTTER
- REMOVE CONCRETE CURB
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

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SCALE FEET

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REV.	BY	DATE

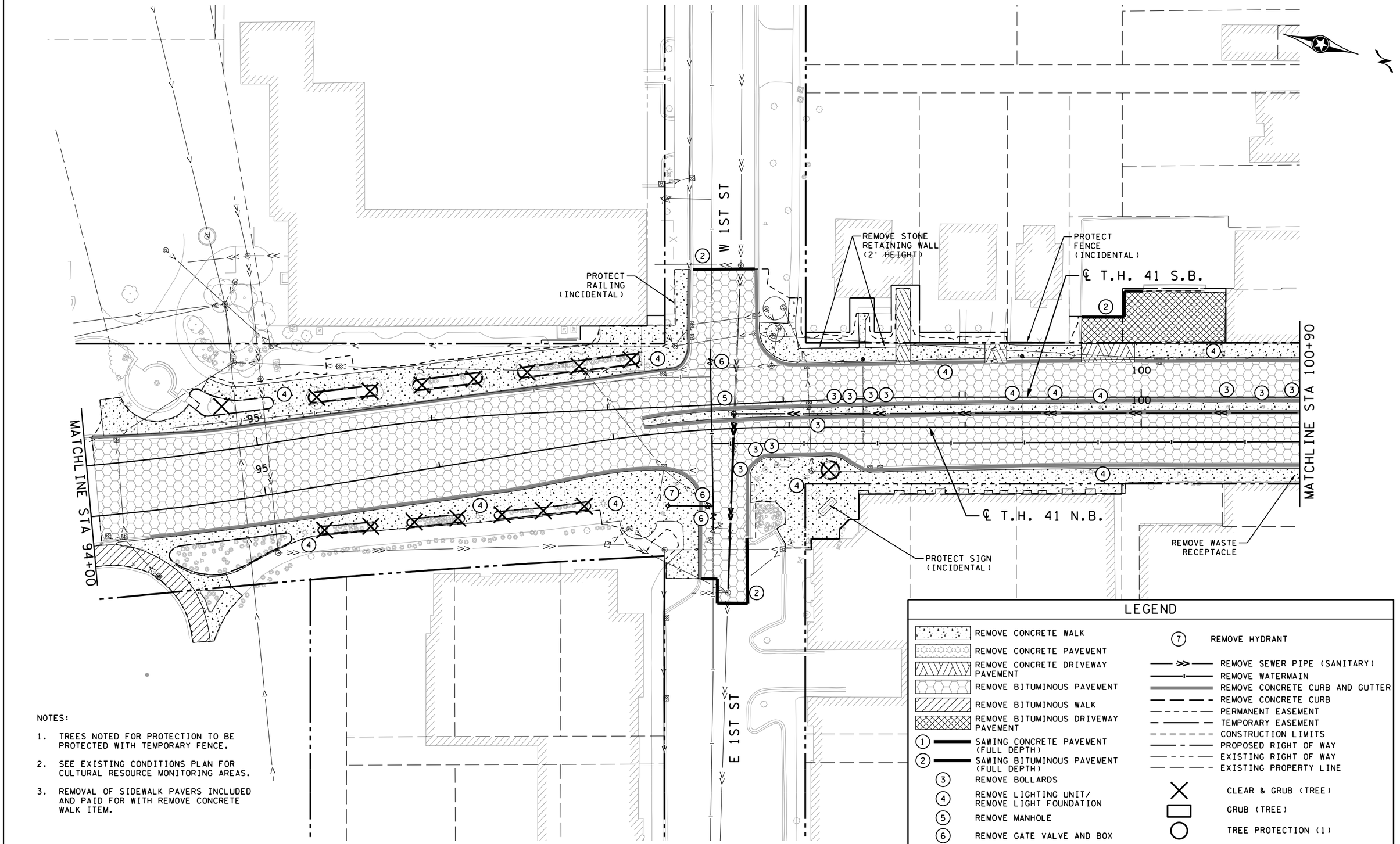
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
REMOVAL PLAN

SHEET 100 OF 359



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CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

REMOVAL PLAN

SHEET 101 OF 359

MATCHLINE STA 100+90

MATCHLINE STA 108+00

W 2ND ST

E 2ND ST

W 3RD ST

E 3RD ST

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

SALVAGE BRICK PAVERS

REMOVE WASTE RECEPTACLE

PROTECT FENCE (INCIDENTAL)

PROTECT FLAGPOLE (INCIDENTAL)

RELOCATE MISC. STRUCTURES (AIR CONDITIONER)

REMOVE MISC. STRUCTURES (PLATFORM/BALCONY)

REMOVE BENCH (BY OTHERS)

REMOVE RETAINING WALL (1' HEIGHT - WOOD)

REMOVE CONCRETE RETAINING WALL (4' HEIGHT)

REMOVE SIGN & MASONRY BLOCKS (INCIDENTAL)

REMOVE DUMPSTER ENCLOSURE

REMOVE RETAINING WALL (3.5' HEIGHT - MODULAR BLOCK)

CITY PROPERTY

F&I TEMPORARY FENCE AT EDGE OR PARK PROPERTY IN BETWEEN EXISTING ORNAMENTAL FENCE. CULTURAL RESOURCES MONITORING IS REQUIRED DURING INSTALLATION

101

105

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
- (4) REMOVE LIGHTING UNIT/ REMOVE LIGHT FOUNDATION
- (5) REMOVE MANHOLE
- (6) REMOVE GATE VALVE AND BOX
- (7) REMOVE HYDRANT
- REMOVE SEWER PIPE (SANITARY)
- REMOVE WATERMAIN
- REMOVE CONCRETE CURB AND GUTTER
- REMOVE CONCRETE CURB
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

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SCALE FEET

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	DRAWN	CHECKED
BAU	TWB	DMK

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
REMOVAL PLAN

SHEET 102 OF 359

MATCHLINE STA 108+00

MATCHLINE STA 113+50

REMOVE WASTE RECEPTACLE

REMOVE WASTE RECEPTACLE

REMOVE WASTE RECEPTACLE

REMOVE WASTE RECEPTACLE

CITY PROPERTY

CITY PROPERTY

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

W 5TH ST

E 5TH ST

E 4TH ST

110

110

113

113

F&I TEMPORARY FENCE AT EDGE OR PARK PROPERTY IN BETWEEN EXISTING ORNAMENTAL FENCE, CULTURAL RESOURCES MONITORING IS REQUIRED DURING INSTALLATION

REMOVE DUMPSTER ENCLOSURE

REMOVE RETAINING WALL (2' MODULAR BLOCK)

BUILDING REMOVAL A

REMOVE RETAINING WALL (1.5' MODULAR BLOCK)

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
- (4) REMOVE LIGHTING UNIT/ REMOVE LIGHT FOUNDATION
- (5) REMOVE MANHOLE
- (6) REMOVE GATE VALVE AND BOX
- (7) REMOVE HYDRANT
- REMOVE SEWER PIPE (SANITARY)
- REMOVE WATERMAIN
- REMOVE CONCRETE CURB AND GUTTER
- REMOVE CONCRETE CURB
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

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SCALE 0 25 50 FEET

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

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CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
REMOVAL PLAN

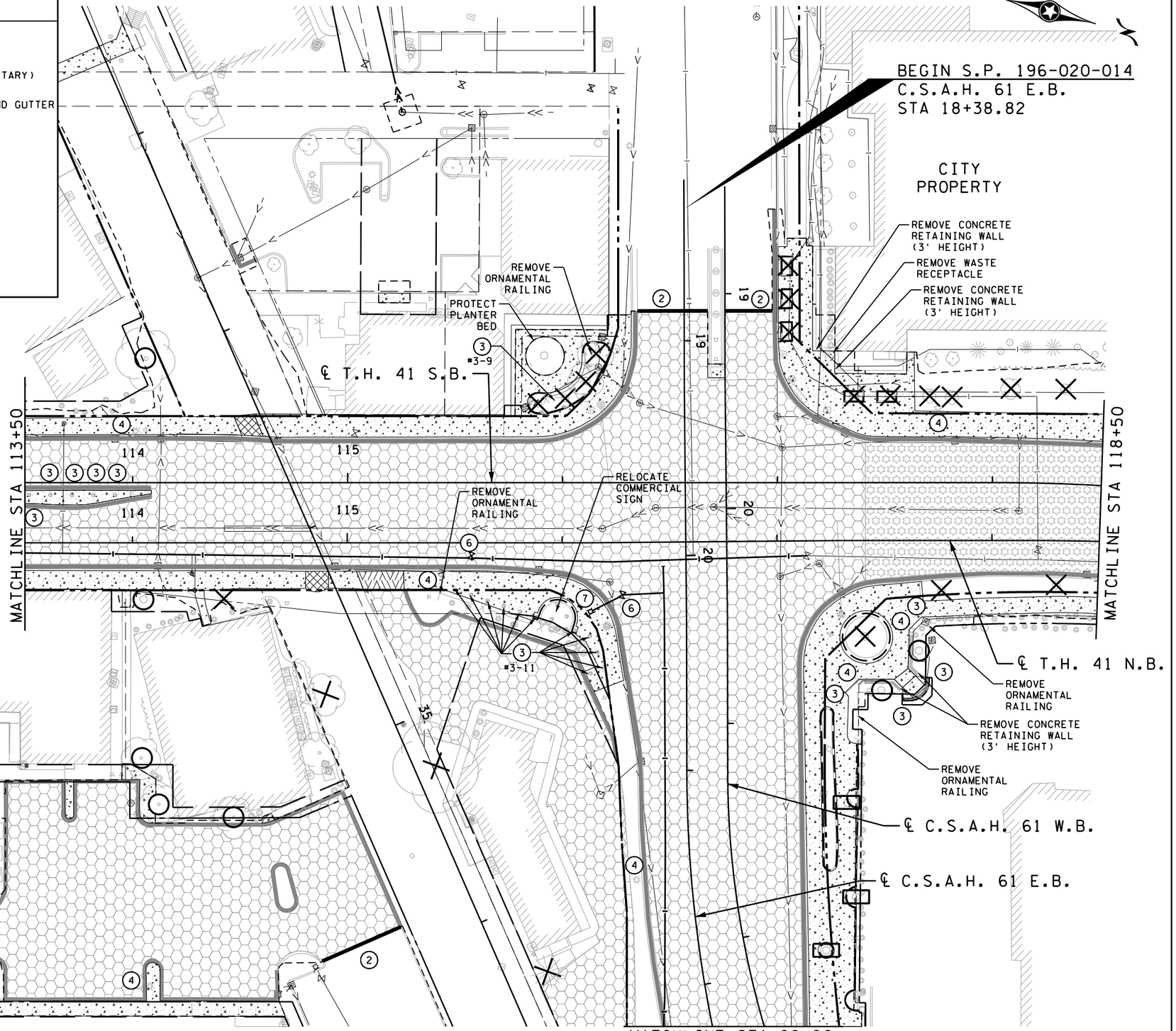
SHEET 103 OF 359

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
- (4) REMOVE LIGHTING UNIT/ REMOVE LIGHT FOUNDATION
- (5) REMOVE MANHOLE
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- (7) REMOVE HYDRANT
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- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
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- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.



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SCALE FEET

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
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CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
REMOVAL PLAN

SHEET 104 OF 359

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
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- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

CITY PROPERTY

CITY PROPERTY

REMOVE BENCH

PROTECT SIGN (INCIDENTAL)

℄ T.H. 41 S.B.

END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

MATCHLINE STA 118+50

120

120

125

125

℄ T.H. 41 N.B.

WALNUT ST

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

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CHECKED	DMK

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

REMOVAL PLAN

SHEET 105 OF 359

MATCHLINE STA. 22+20

MATCHLINE STA. 29+10

℄ C.S.A.H. 61 W.B.

℄ C.S.A.H. 61 E.B.

N WALNUT ST

REMOVE ORNAMENTAL RAILING

REMOVE ORNAMENTAL RAILING

REMOVE RETAINING WALL (2' MODULAR BLOCK)

REMOVE ENERGY ABSORBING TERMINAL

REMOVE GUARDRAIL PLATE BEAM

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
- (4) REMOVE LIGHTING UNIT/ REMOVE LIGHT FOUNDATION
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- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

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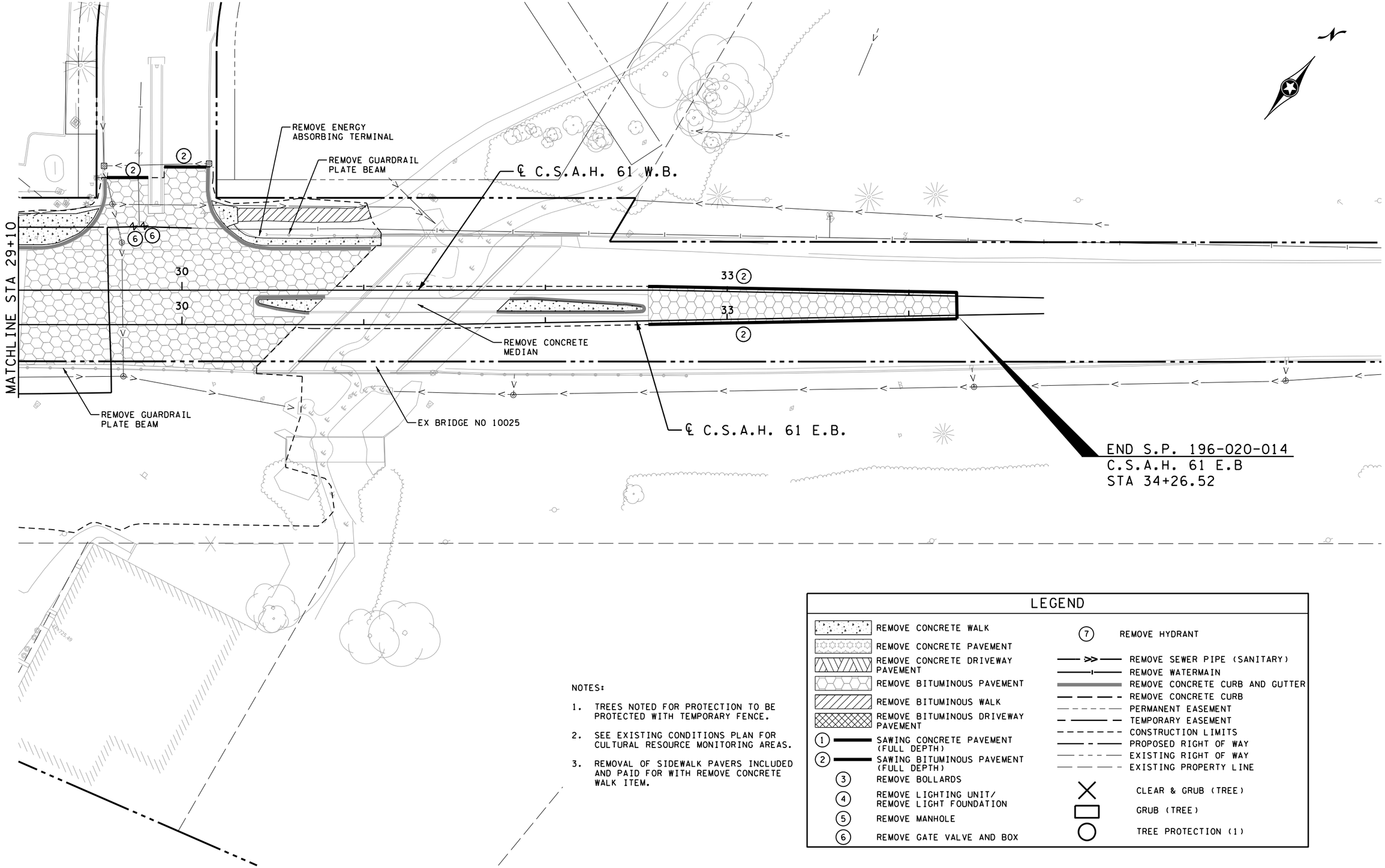
DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

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DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

REMOVAL PLAN

SHEET 106 OF 359



NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
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- (7) REMOVE HYDRANT
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- REMOVE WATERMAIN
- REMOVE CONCRETE CURB AND GUTTER
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- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

REMOVAL PLAN

SHEET 107 OF 359

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

BITUMINOUS PATCH SPECIAL
ABANDON MANHOLE
ABANDON PIPE SEWER
ABANDON PIPE SEWER
BITUMINOUS PATCH SPECIAL
BITUMINOUS PATCH SPECIAL
℄ PEDESTRIAN UNDERPASS
BITUMINOUS PATCH SPECIAL
BITUMINOUS PATCH SPECIAL
℄ T.H. 41 S.B.
TFF=735.97
TFF=735.88
30
31
32
33
PROTECT LIGHT POLE
REMOVE PICNIC TABLE (BY OTHERS)
REMOVE WOOD POST
REMOVE PICNIC TABLE (BY OTHERS)
℄ T.H. 41 N.B.
MATCHLINE STA. 34+00
115
114
114
AC
AC
TFF=730.44

LEGEND

- REMOVE CONCRETE WALK
- REMOVE CONCRETE PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- REMOVE BITUMINOUS PAVEMENT
- REMOVE BITUMINOUS WALK
- REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- (1) SAWING CONCRETE PAVEMENT (FULL DEPTH)
- (2) SAWING BITUMINOUS PAVEMENT (FULL DEPTH)
- (3) REMOVE BOLLARDS
- (4) REMOVE LIGHTING UNIT/ REMOVE LIGHT FOUNDATION
- (5) REMOVE MANHOLE
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- (7) REMOVE HYDRANT
- REMOVE SEWER PIPE (SANITARY)
- REMOVE WATERMAIN
- REMOVE CURB AND GUTTER
- REMOVE CONCRETE CURB
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- CLEAR & GRUB (TREE)
- GRUB (TREE)
- TREE PROTECTION (1)

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SCALE 0 15 30 FEET

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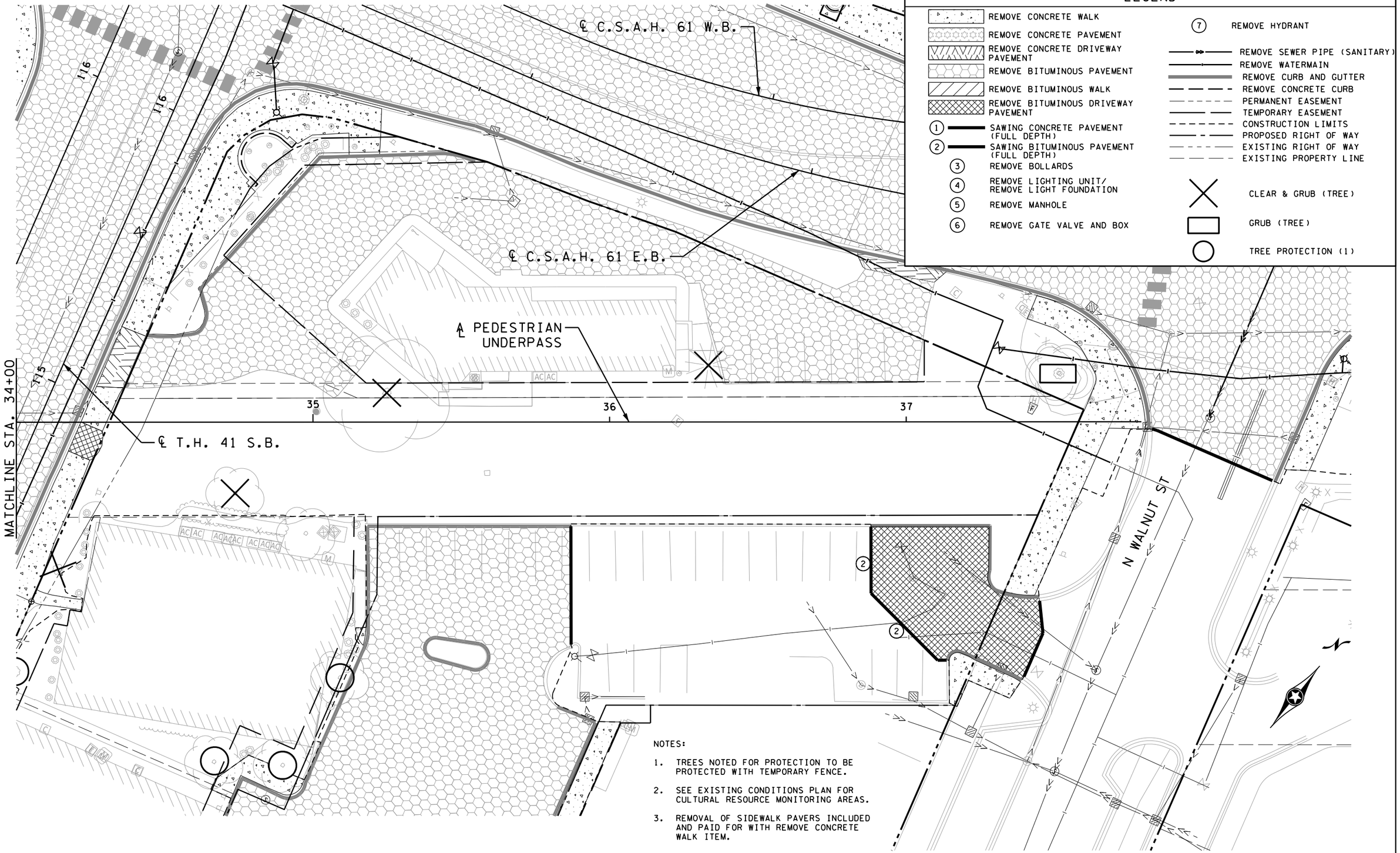
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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

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DRAWN	TWB
CHECKED	DMK

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
REMOVAL PLAN

SHEET 108 OF 359



NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF SIDEWALK PAVERS INCLUDED AND PAID FOR WITH REMOVE CONCRETE WALK ITEM.

SCALE 0 15 30 FEET

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DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

REMOVAL PLAN

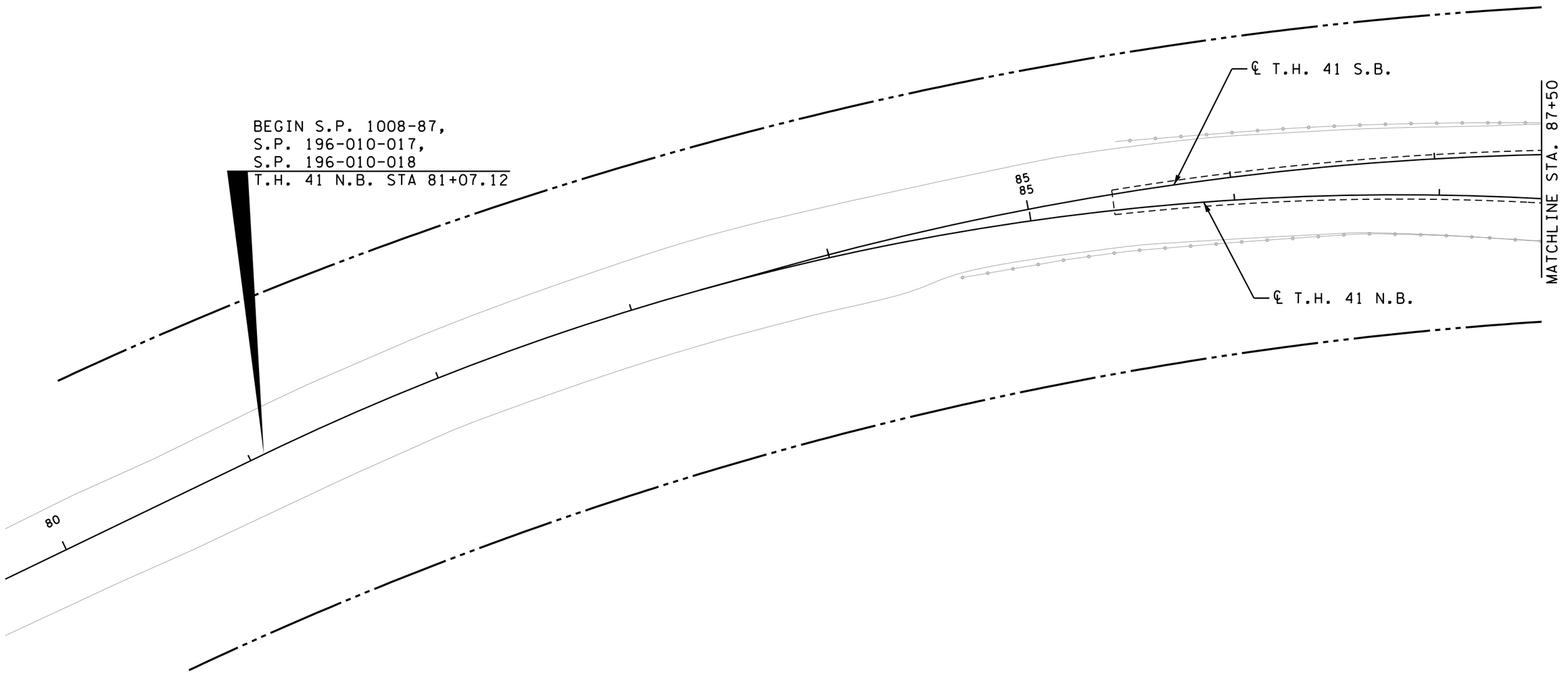
SHEET 109 OF 359

LEGEND

(1)	REMOVE DRAINAGE STRUCTURE
(2)	REMOVE PIPE APRON
XXXXXXX	MNDOT TAMS ID NUMBER
——>——	REMOVE SEWER PIPE (STORM)
— — — — —	PERMANENT EASEMENT
— — — — —	TEMPORARY EASEMENT
- - - - - - -	CONSTRUCTION LIMITS
——— - ———	PROPOSED RIGHT OF WAY
—— - - - ——	EXISTING RIGHT OF WAY
—— —— —— -	EXISTING PROPERTY LINE

NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
2. SEE EXISTING CONDITIONS PLAN FOR CULTURAL RESOURCE MONITORING AREAS.
3. REMOVAL OF ROOF DRAIN APPURTENANCES AND/OR CONNECTIONS THAT ARE BEING REPLACED WITH THIS PROJECT IS INCIDENTAL. SEE DRAINAGE PLAN.



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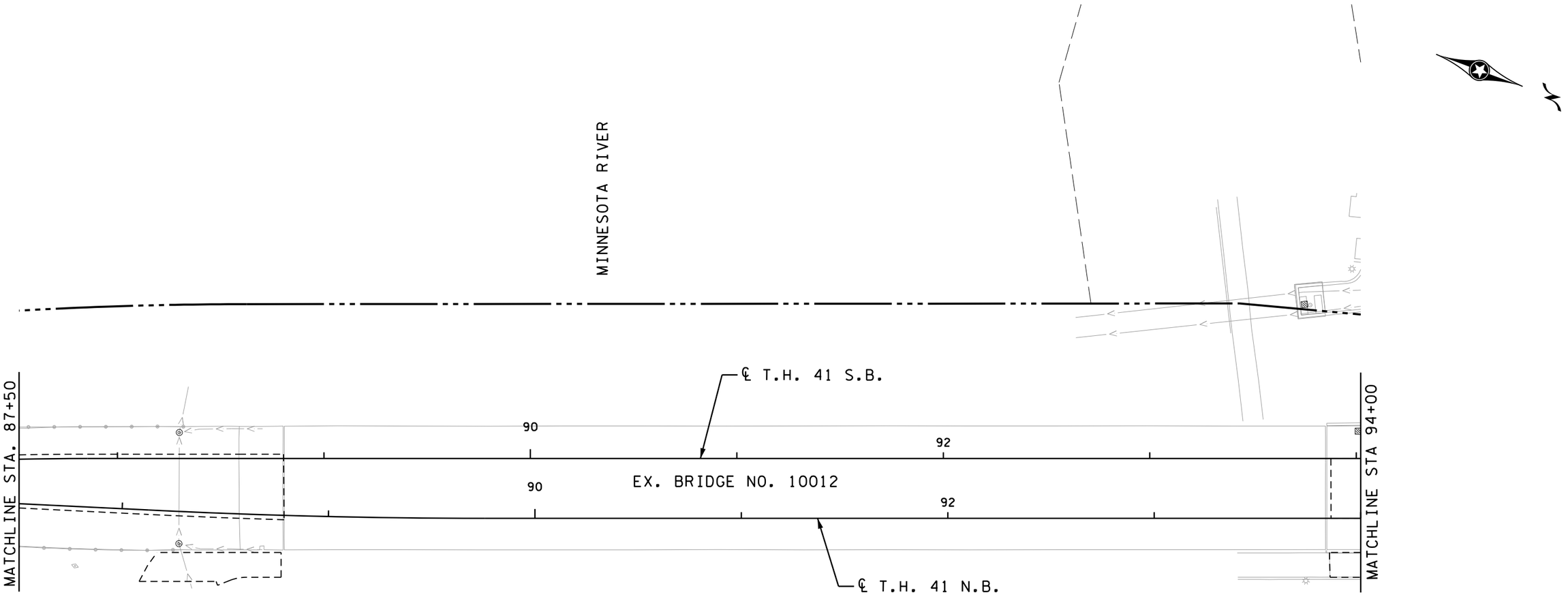
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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

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DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE REMOVAL PLAN

SHEET 110 OF 359



NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
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XXXXXXX	MNDOT TAMS ID NUMBER
——>——	REMOVE SEWER PIPE (STORM)
— — — — —	PERMANENT EASEMENT
— ——— —	TEMPORARY EASEMENT
- - - - - - -	CONSTRUCTION LIMITS
——-——	PROPOSED RIGHT OF WAY
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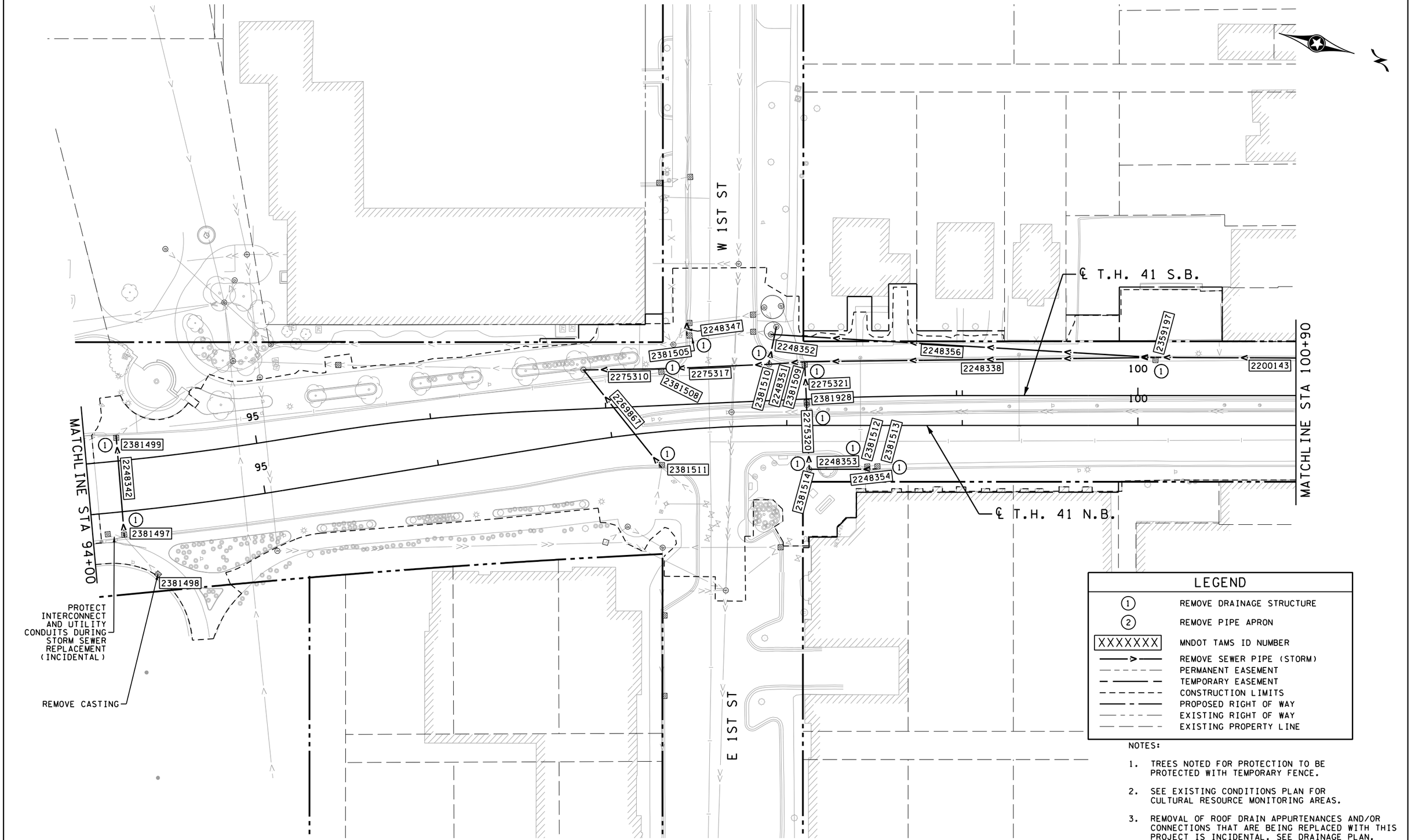
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE REMOVAL PLAN

SHEET 111 OF 359



LEGEND

①	REMOVE DRAINAGE STRUCTURE
②	REMOVE PIPE APRON
XXXXXXX	MNDOT TAMS ID NUMBER
——>——	REMOVE SEWER PIPE (STORM)
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	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
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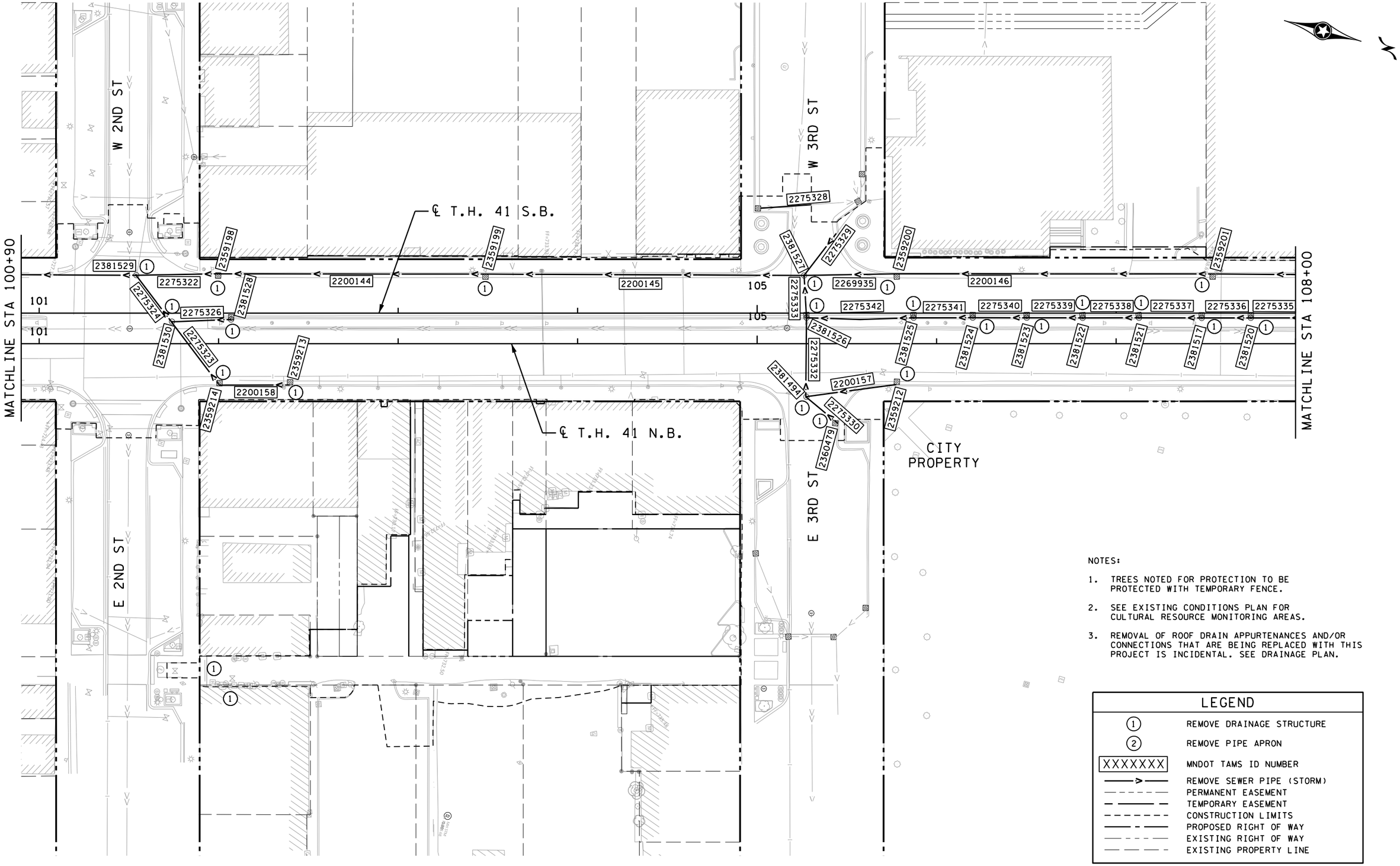
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE REMOVAL PLAN

SHEET 112 OF 359

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NOTES:

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	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
	PROPOSED RIGHT OF WAY
	EXISTING RIGHT OF WAY
	EXISTING PROPERTY LINE

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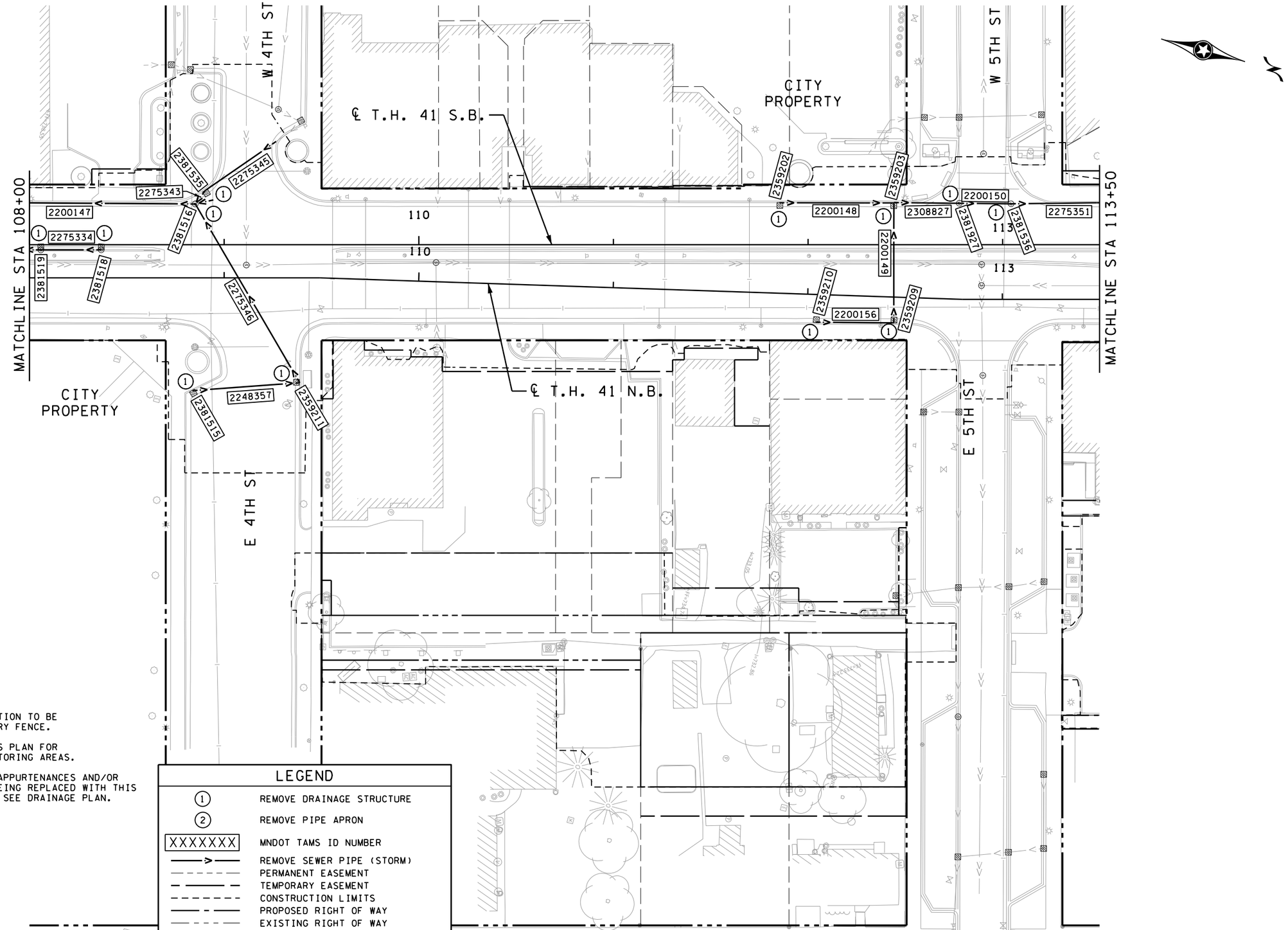
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE REMOVAL PLAN

SHEET 113 OF 359



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	CONSTRUCTION LIMITS
	PROPOSED RIGHT OF WAY
	EXISTING RIGHT OF WAY
	EXISTING PROPERTY LINE

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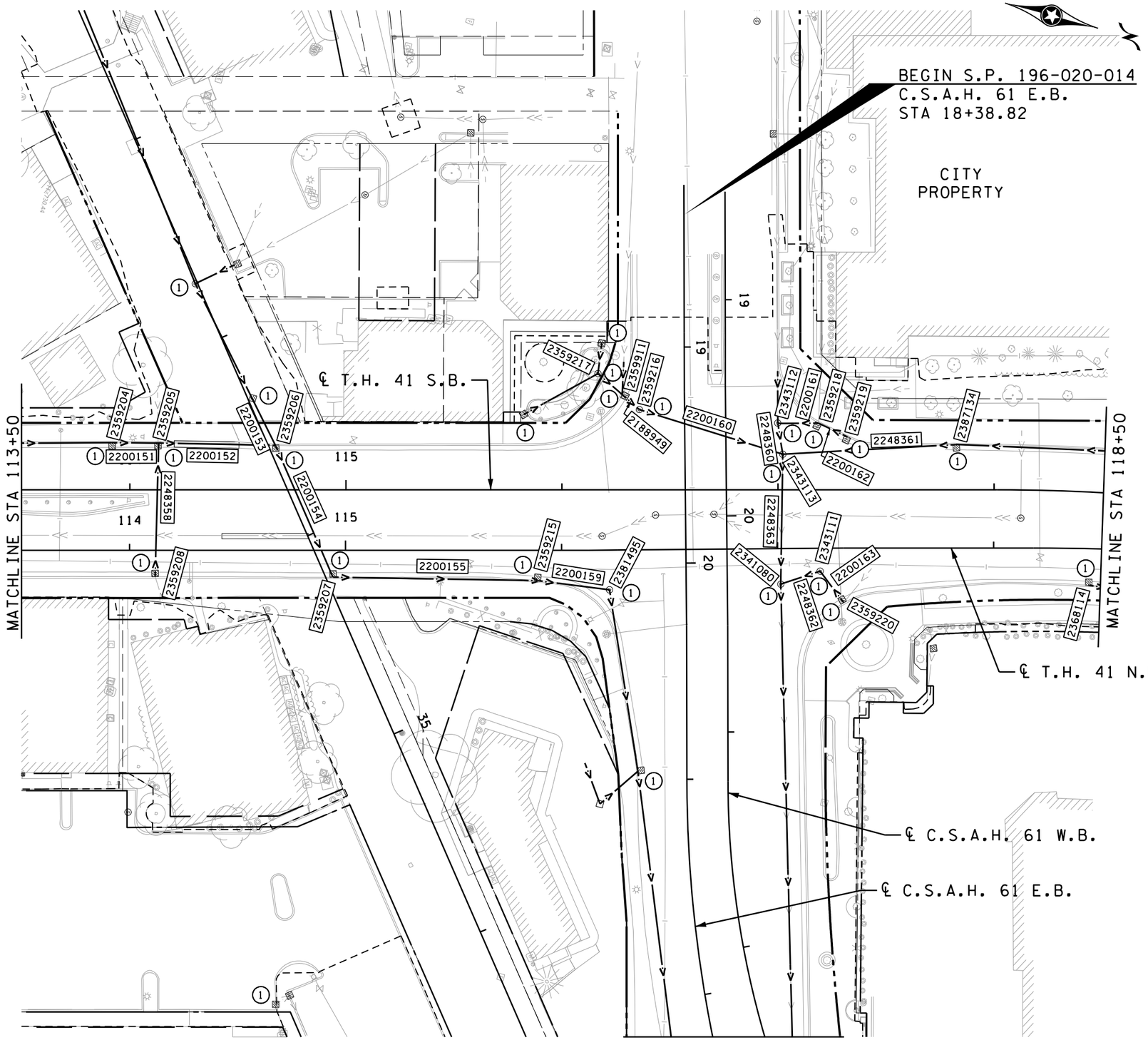
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE REMOVAL PLAN

SHEET 114 OF 359



NOTES:

1. TREES NOTED FOR PROTECTION TO BE PROTECTED WITH TEMPORARY FENCE.
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— - - - —	EXISTING RIGHT OF WAY
—— —— —— -	EXISTING PROPERTY LINE

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE REMOVAL PLAN

SHEET 115 OF 359

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	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
	PROPOSED RIGHT OF WAY
	EXISTING RIGHT OF WAY
	EXISTING PROPERTY LINE

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END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA 118+50

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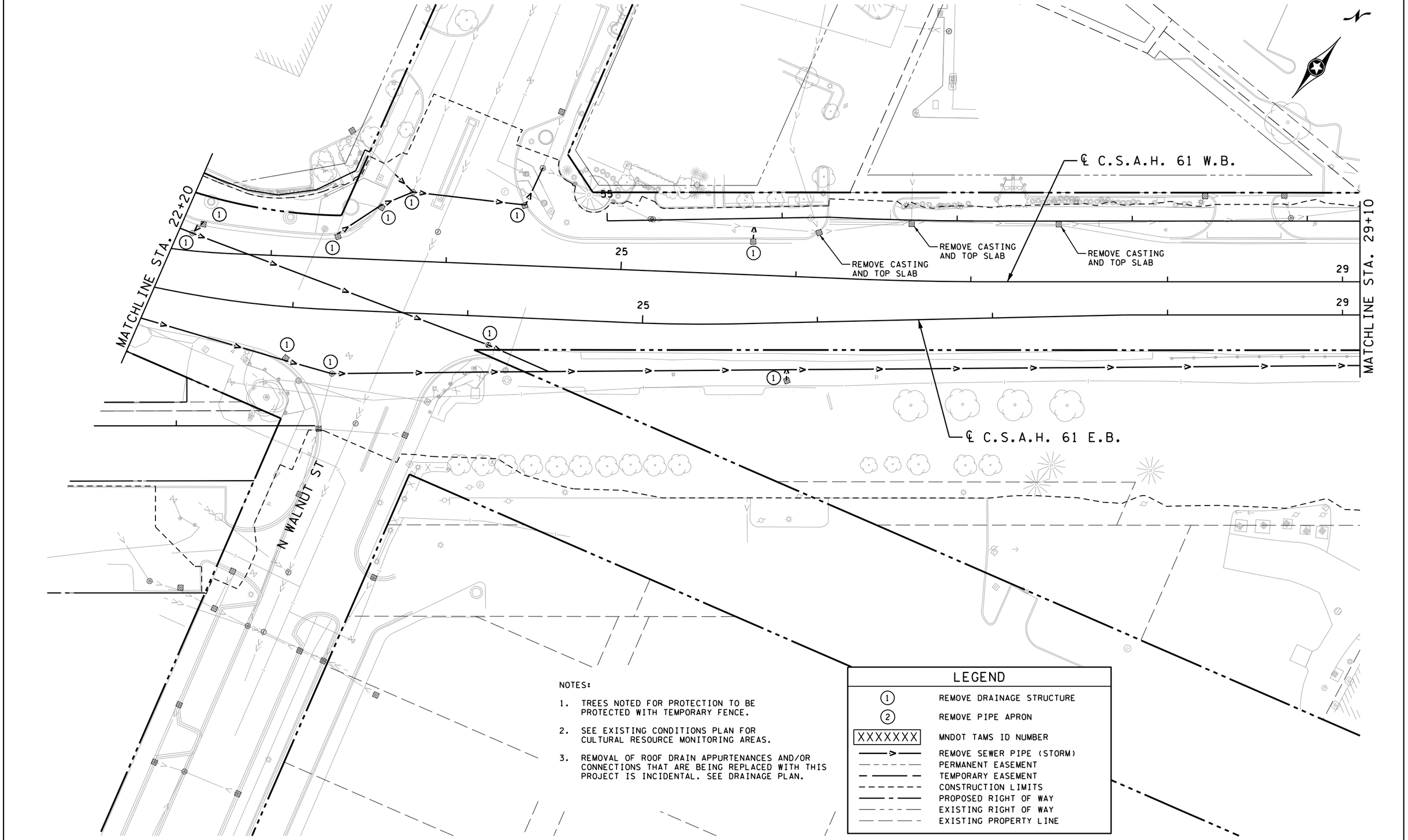
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE REMOVAL PLAN

SHEET 116 OF 359



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—— - ——	PROPOSED RIGHT OF WAY
— — — —	EXISTING RIGHT OF WAY
—— — —— -	EXISTING PROPERTY LINE

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE REMOVAL PLAN

SHEET 117 OF 359

MATCHLINE STA 29+10

℄ C.S.A.H. 61 W.B.

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EX BRIDGE NO 10025

℄ C.S.A.H. 61 E.B.

END S.P. 196-020-014
C.S.A.H. 61 E.B
STA 34+26.52

NOTES:

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- - - - - - -	CONSTRUCTION LIMITS
——— - ———	PROPOSED RIGHT OF WAY
— - - - - —	EXISTING RIGHT OF WAY
——— — ——— -	EXISTING PROPERTY LINE

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DRAINAGE REMOVAL PLAN

SHEET 118 OF 359

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℄ PEDESTRIAN UNDERPASS

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 34+00

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LEGEND

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XXXXXXX	MNDOT TAMS ID NUMBER
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DRAINAGE REMOVAL PLAN

SHEET 119 OF 359

℄ T.H. 41 S.B.

℄ C.S.A.H. 61 W.B.

℄ C.S.A.H. 61 E.B.

℄ PEDESTRIAN UNDERPASS

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DRAINAGE REMOVAL PLAN

SHEET 120 OF 359

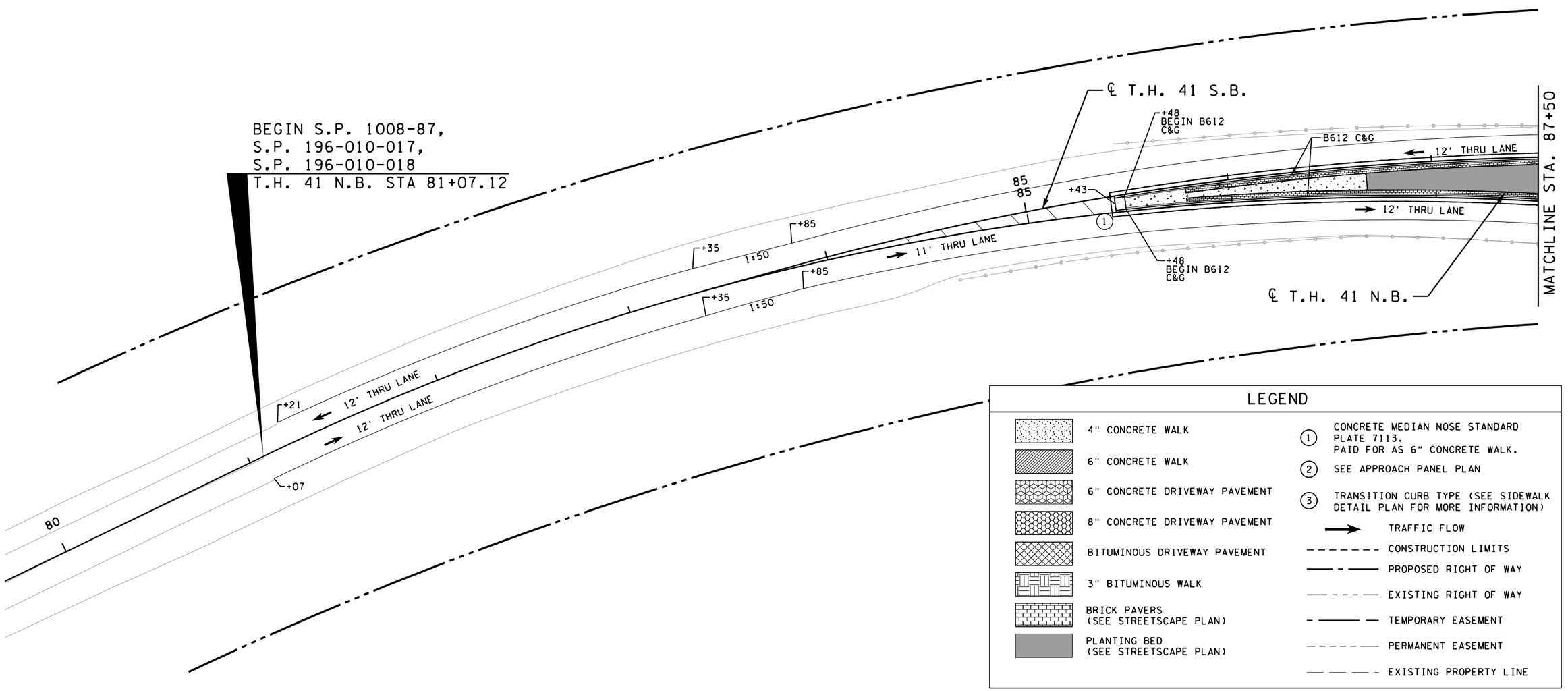
CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.

2. ALL STATION CALLOUTS AND OFFSETS ON T.H. 41 REFER TO T.H. 41 N.B. UNLESS OTHERWISE NOTED.

3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.

4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.



LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

- (1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
- (2) SEE APPROACH PANEL PLAN
- (3) TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)
- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

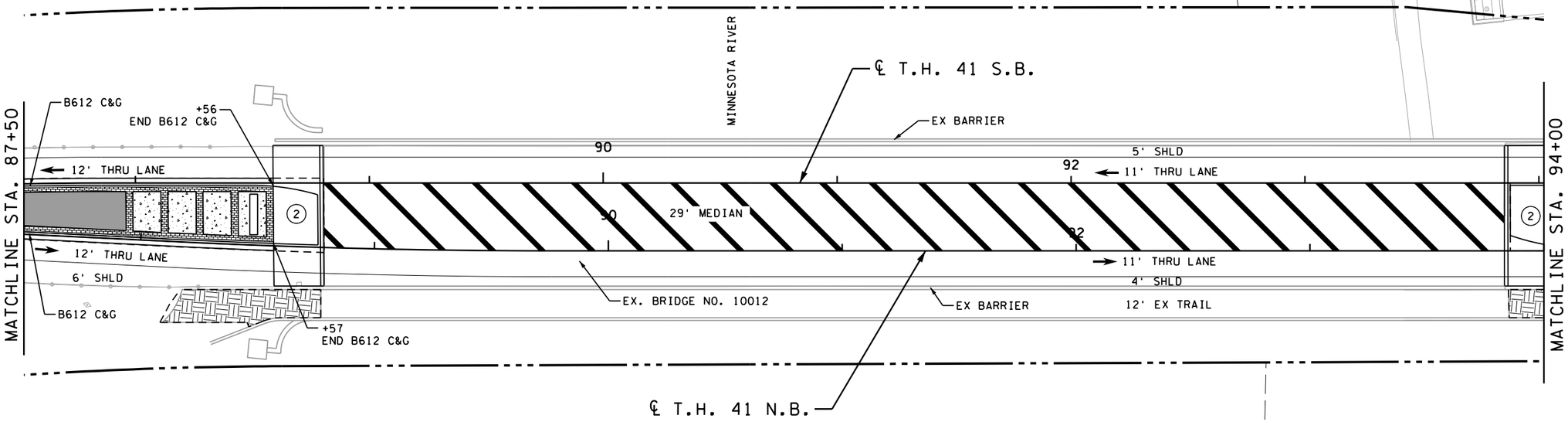
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S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PLAN

SHEET 121 OF 359

CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON T.H. 41 REFER TO T.H. 41 N.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.



LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

(1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
(2) SEE APPROACH PANEL PLAN
(3) TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)

- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

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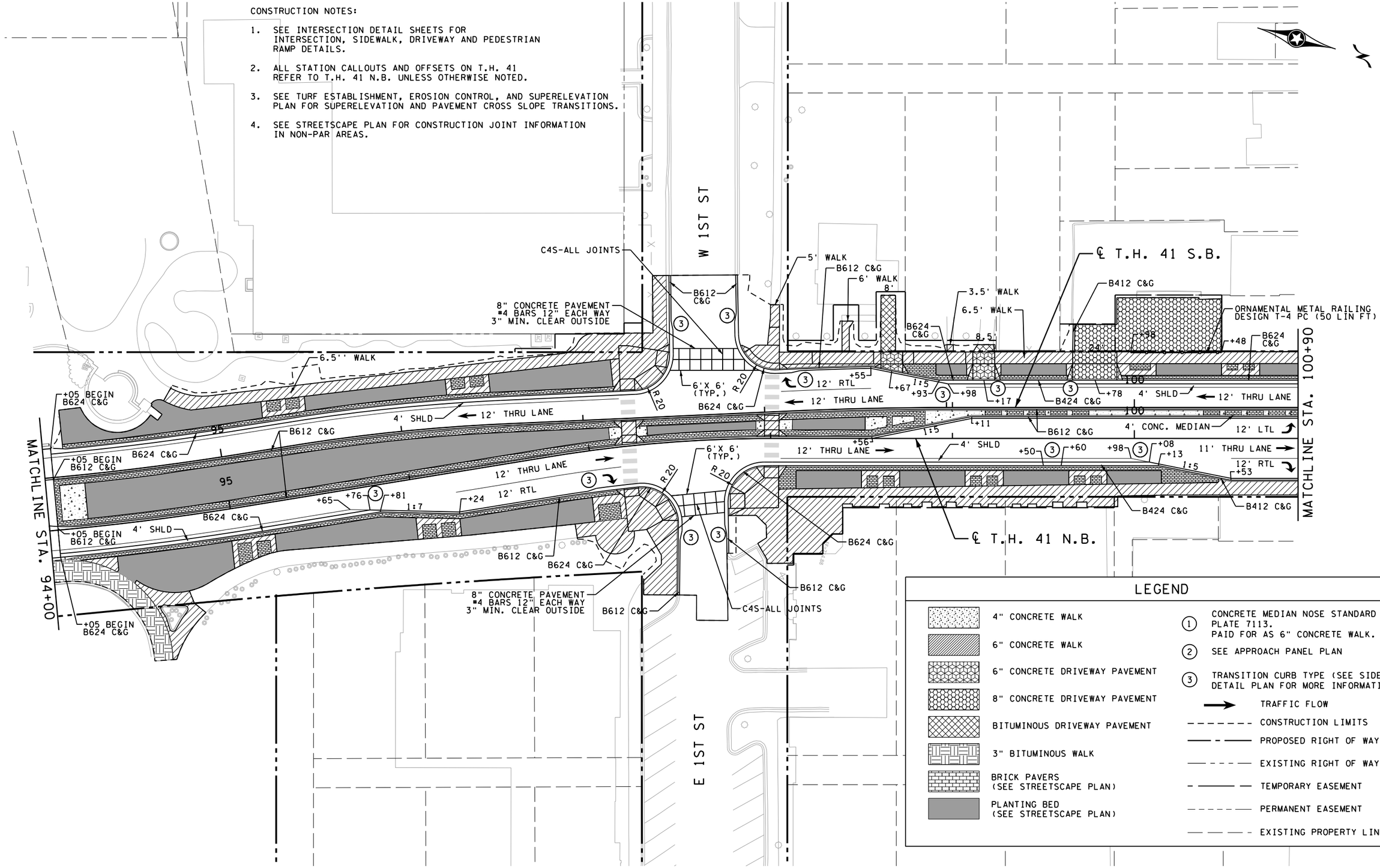
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PLAN

SHEET 122 OF 359

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CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON T.H. 41 REFER TO T.H. 41 N.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.



LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

(1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
(2) SEE APPROACH PANEL PLAN
(3) TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)

- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

SCALE 0 25 50 FEET

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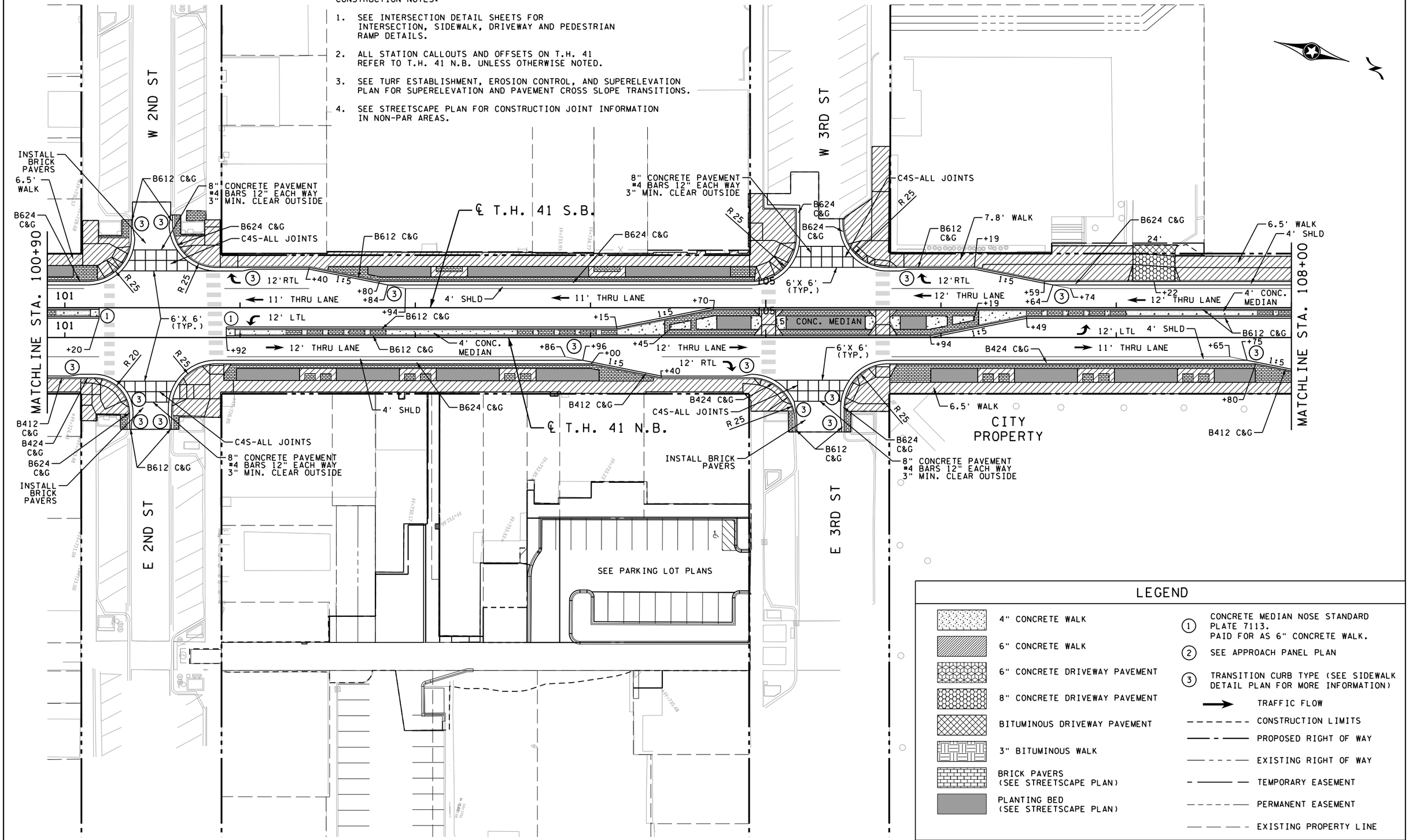
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PLAN

SHEET 123 OF 359

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CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON T.H. 41 REFER TO T.H. 41 N.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.



LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

(1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
(2) SEE APPROACH PANEL PLAN
(3) TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)

- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

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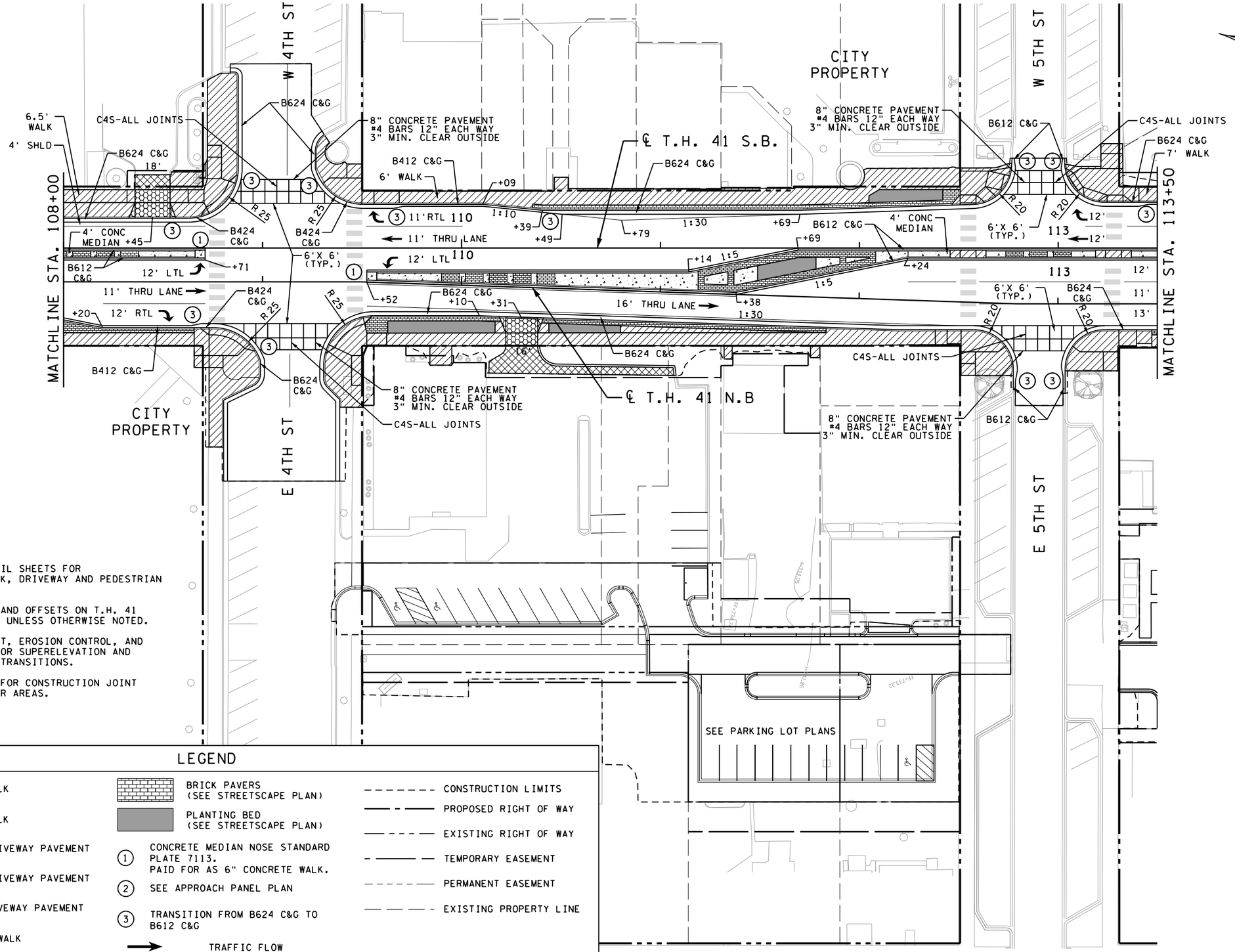
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DENA M. KING
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PLAN

SHEET 124 OF 359



CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON T.H. 41 REFER TO T.H. 41 N.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.

LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)
- (1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
- (2) SEE APPROACH PANEL PLAN
- (3) TRANSITION FROM B624 C&G TO B612 C&G
- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

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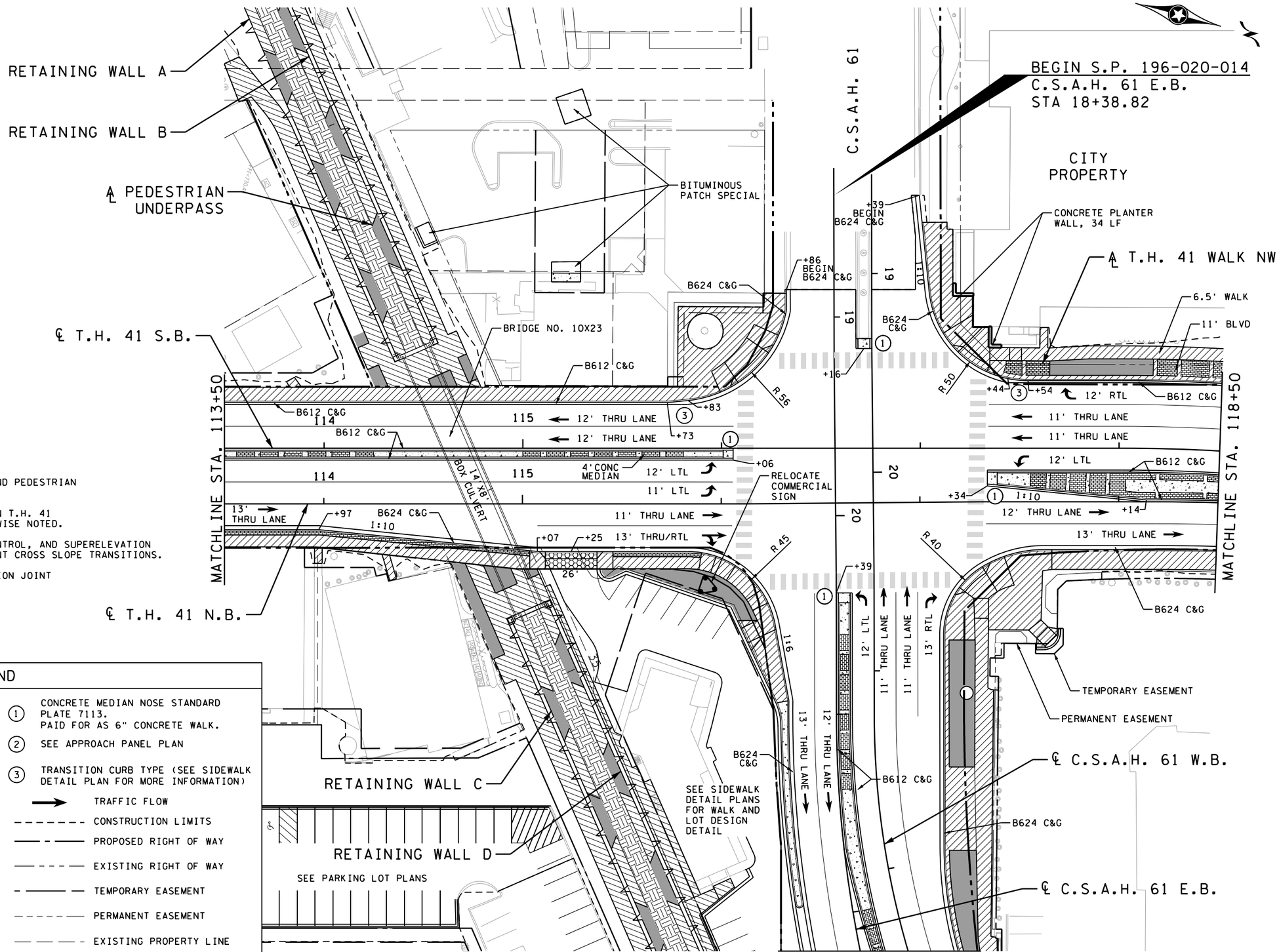
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CONSTRUCTION PLAN

SHEET 125 OF 359

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CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON T.H. 41 REFER TO T.H. 41 N.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.

LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

- (1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
- (2) SEE APPROACH PANEL PLAN
- (3) TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)
- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

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LIC. NO. 45859 DATE 03-02-2022

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S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

CONSTRUCTION PLAN

SHEET 126 OF 359

CITY PROPERTY

CITY PROPERTY

END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

6.5' WALK
11' BLVD
12'
B612 C&G
+49
1:10
12' RTL
11' THRU LANE
11' THRU LANE
12' LTL
120
120
+81
6.5' MIN. CONC. MEDIAN
+18
B624 C&G
+55
36'
37'
MATCHLINE STA. 118+50
12'
11'
12'
+57
+68
+00
13' THRU LANE
12' THRU LANE
12' THRU LANE
13' THRU LANE
B624 C&G
R 50
10' R2
6' R4
6.5' WALK
B424 C&G
+38
END B424 C&G
14.5'
+31
END B612 C&G
R100
+36
+31
END B612 C&G
B624 C&G
R40
6.5' WALK
7.4' WALK
B612 C&G
+33
END B612 C&G
WALNUT ST
125
125

LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

1. CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
2. SEE APPROACH PANEL PLAN
3. TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)

- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON T.H. 41 REFER TO T.H. 41 N.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.

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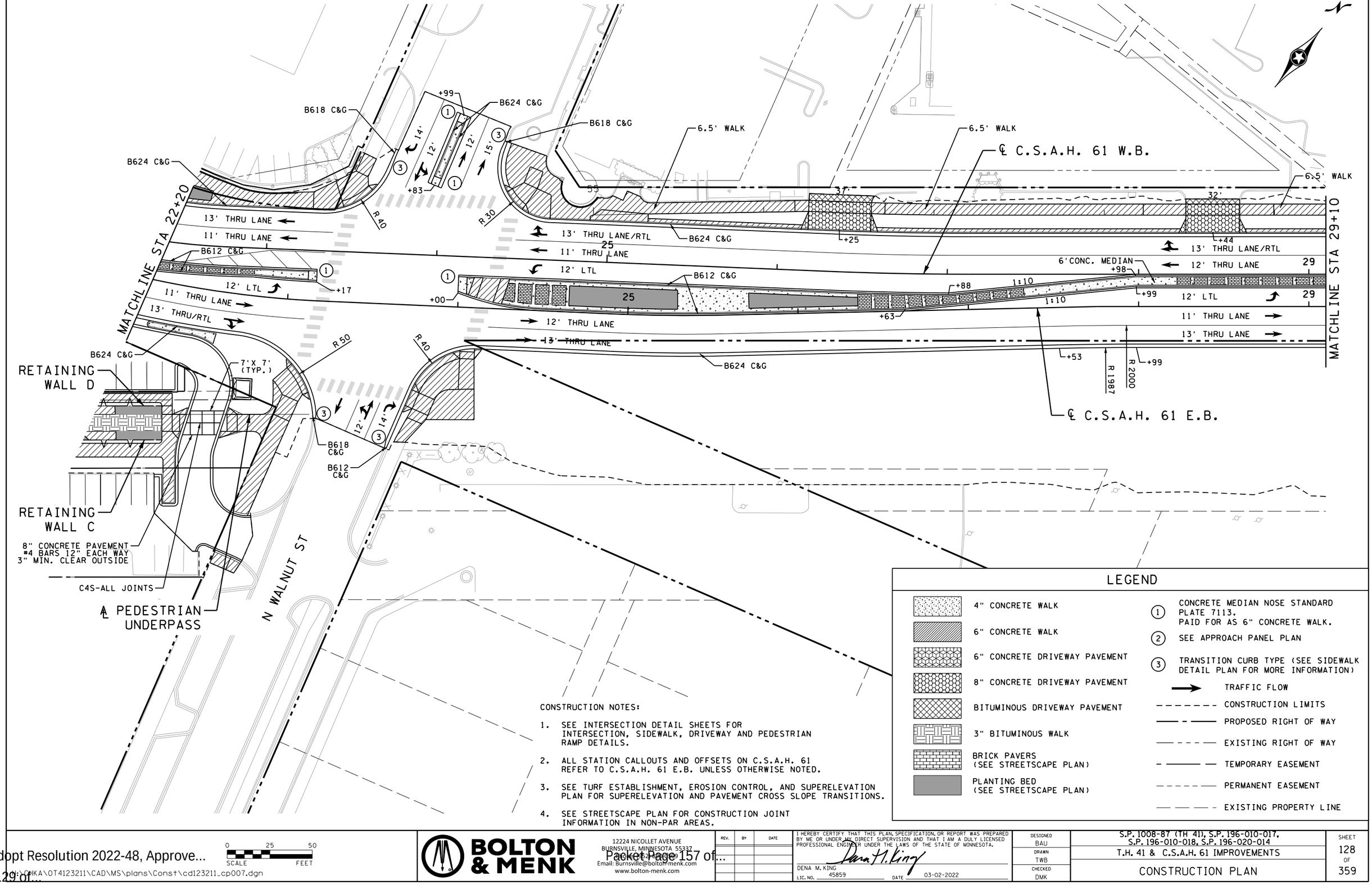
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PLAN

SHEET 127 OF 359



CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON C.S.A.H. 61 REFER TO C.S.A.H. 61 E.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.

LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

- (1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
- (2) SEE APPROACH PANEL PLAN
- (3) TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)
- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

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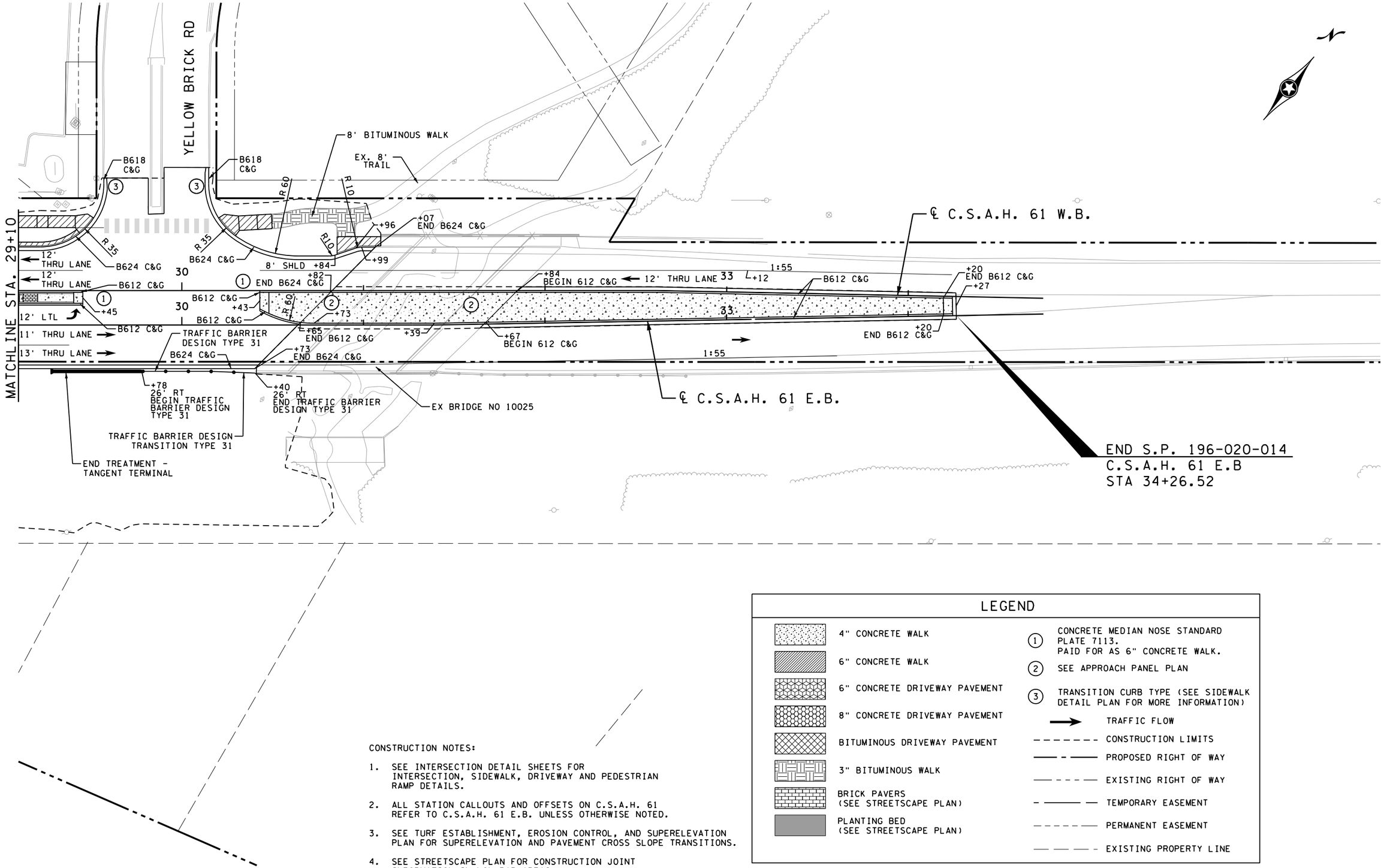
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PLAN

SHEET 128 OF 359



CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS ON C.S.A.H. 61 REFER TO C.S.A.H. 61 E.B. UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.

LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

(1) CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
(2) SEE APPROACH PANEL PLAN
(3) TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)

- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

SCALE 0 25 50 FEET

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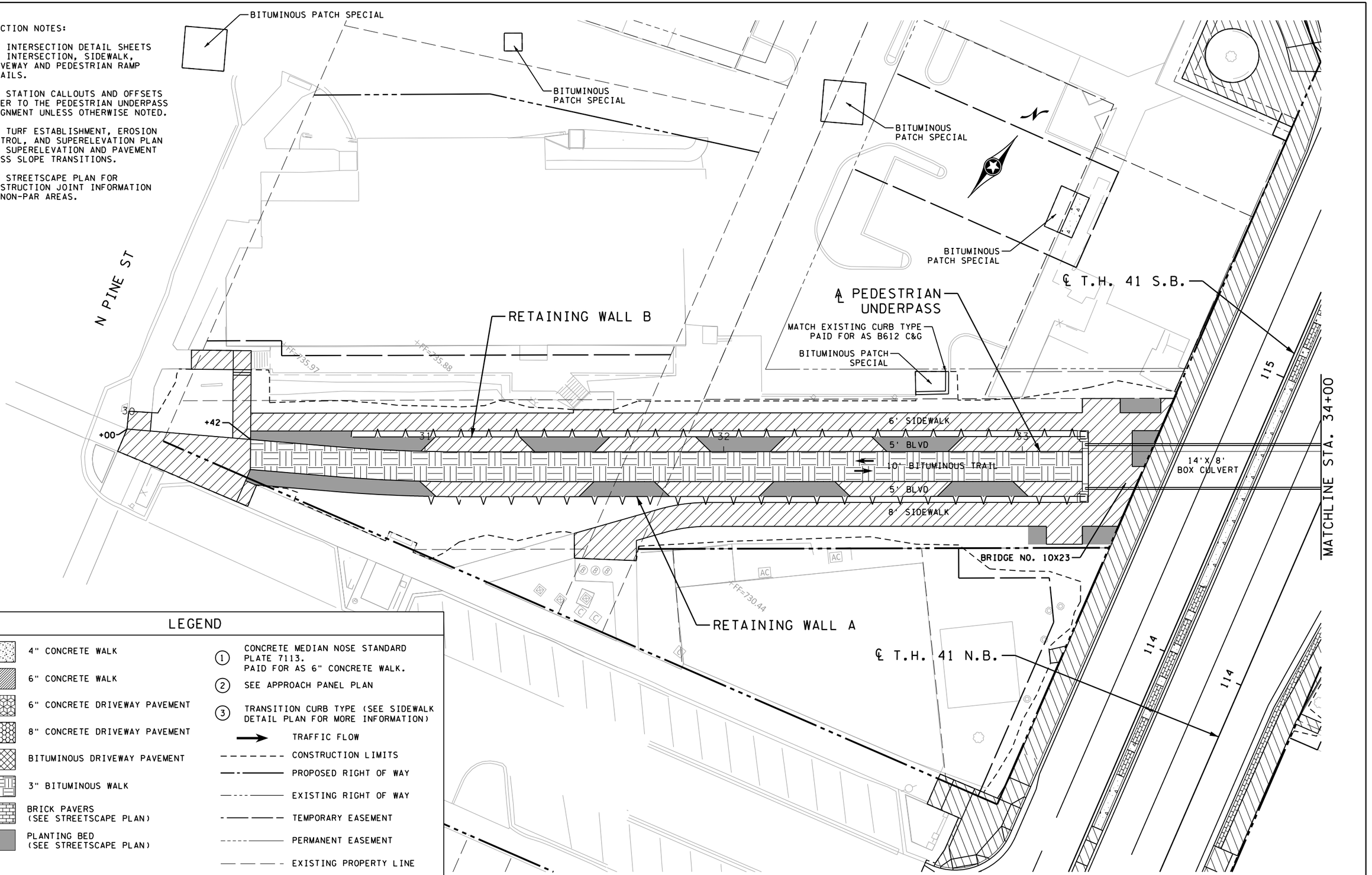
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CONSTRUCTION PLAN

SHEET 129 OF 359

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CONSTRUCTION NOTES:

1. SEE INTERSECTION DETAIL SHEETS FOR INTERSECTION, SIDEWALK, DRIVEWAY AND PEDESTRIAN RAMP DETAILS.
2. ALL STATION CALLOUTS AND OFFSETS REFER TO THE PEDESTRIAN UNDERPASS ALIGNMENT UNLESS OTHERWISE NOTED.
3. SEE TURF ESTABLISHMENT, EROSION CONTROL, AND SUPERELEVATION PLAN FOR SUPERELEVATION AND PAVEMENT CROSS SLOPE TRANSITIONS.
4. SEE STREETSCAPE PLAN FOR CONSTRUCTION JOINT INFORMATION IN NON-PAR AREAS.



LEGEND

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- 6" CONCRETE DRIVEWAY PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- 3" BITUMINOUS WALK
- BRICK PAVERS (SEE STREETSCAPE PLAN)
- PLANTING BED (SEE STREETSCAPE PLAN)

1. CONCRETE MEDIAN NOSE STANDARD PLATE 7113. PAID FOR AS 6" CONCRETE WALK.
2. SEE APPROACH PANEL PLAN
3. TRANSITION CURB TYPE (SEE SIDEWALK DETAIL PLAN FOR MORE INFORMATION)

- TRAFFIC FLOW
- CONSTRUCTION LIMITS
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING PROPERTY LINE

SCALE 0 15 30 FEET

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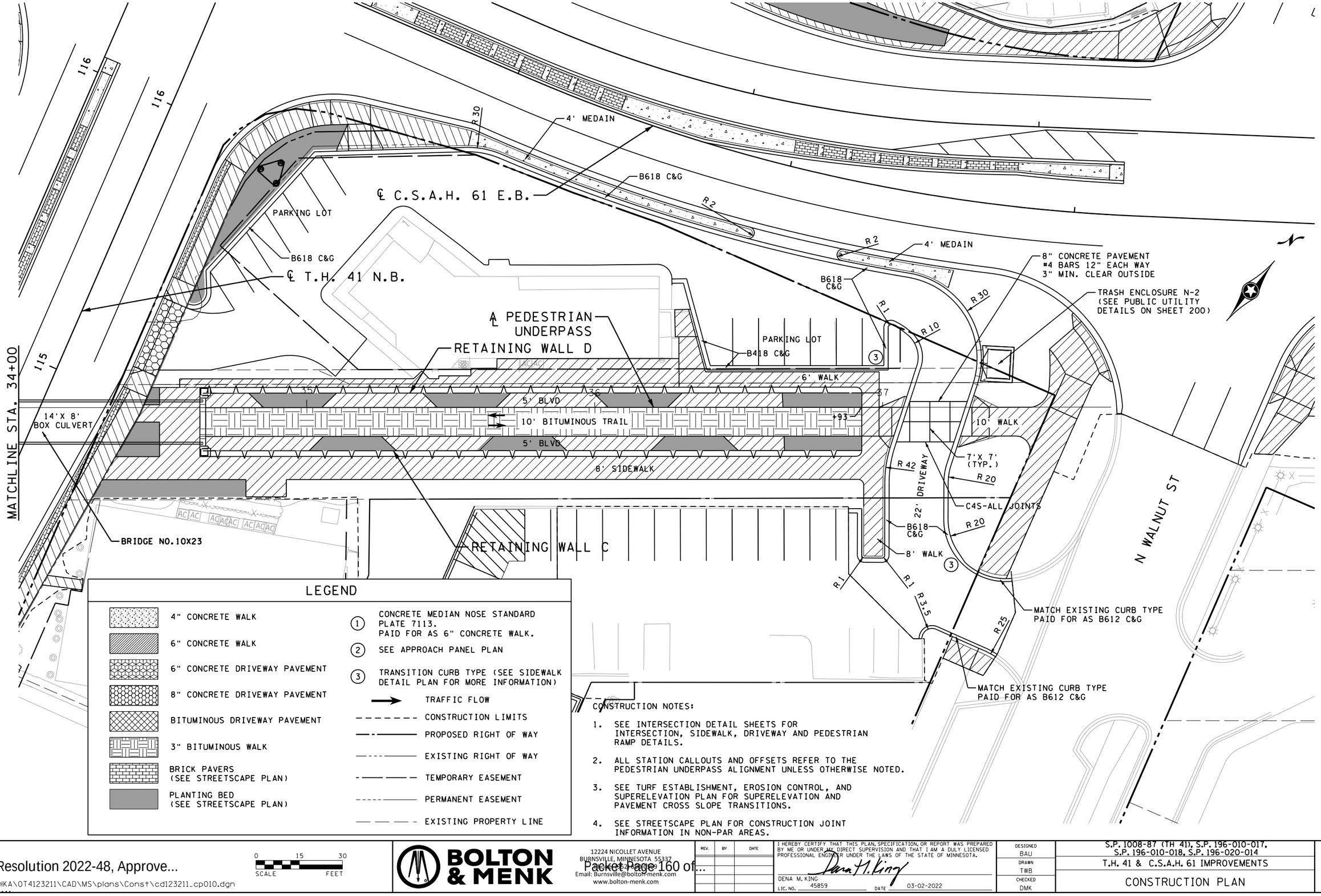
DENA M. KING LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PLAN

SHEET 130 OF 359

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Packet Page 159 of...
Page 131 of...



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T.H. 41 S.B.

TRAFFIC

730
720
710
700

724.72
EL. 724.04
-1.76%
VPI +20.00
EL. 722.72
-4.11%
EL. 719.64
EL. 717.99
ex = 1.88'
K = 38
240.00' V.C.
L.P.
STA. 97+92.43
ELEV. 714.75
EL. 715.64
EL. 716.32
ex = 0.32'
K = 32
90.00' V.C.
EL. 719.54
ENTRANCE
DRIVEWAY
DRIVEWAY
1ST ST
+2.16%
+5.00%
-4.11%
+2.16%
SSD = 534'
ex = -0.44'
K = 64
150.00' V.C.
VPC +45.00
VPT +95.00
VPC +35.00
VPI +55.00 EL. 713.05
VPT +75.00
VPC +03.00
VPI +48.00 EL. 717.29
VPT +93.00
MATCHLINE STA. 100+25
FINISHED GRADE
EXISTING GROUNDLINE
EQUATION:
BK 99+02.88
AH 98+99.61

724.82 724.11 723.95 723.27 722.84 721.76 721.33 719.80 719.43 717.59 717.40 715.52 715.87 714.07 714.99 714.19 714.76 715.16 715.19 716.30 716.18 716.37 716.25 717.53 717.68 718.94 719.89

94 95 96 97 98 99 99 100

T.H. 41 N.B.

TRAFFIC

730
720
710
700

724.64
EL. 724.02
-1.74%
VPI +20.00
EL. 722.63
-4.13%
EL. 719.32
EL. 717.36
ex = 1.58'
K = 37
215.00' V.C.
EL. 714.80
ex = 0.66'
K = 50
162.00' V.C.
EL. 720.27
EXISTING GROUNDLINE
1ST ST
L.P.
STA. 97+98.51
ELEV. 714.24
+1.75%
+5.00%
-4.13%
+1.75%
SSD = 531'
ex = -0.48'
K = 67
160.00' V.C.
VPC +40.00
VPT +00.00
VPC +47.50
VPI +55.00 EL. 712.91
VPT/VPC +62.50
VPI +43.50 EL. 716.22
VPT +24.50
MATCHLINE STA. 100+25
FINISHED GRADE

724.74 724.06 723.84 723.11 722.71 721.69 721.20 719.90 719.32 717.62 717.26 715.41 715.57 714.00 714.56 714.19 714.24 714.97 714.60 716.05 715.60 717.18 717.10 718.43 719.10

94 95 96 97 98 99 100

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SCALE FEET

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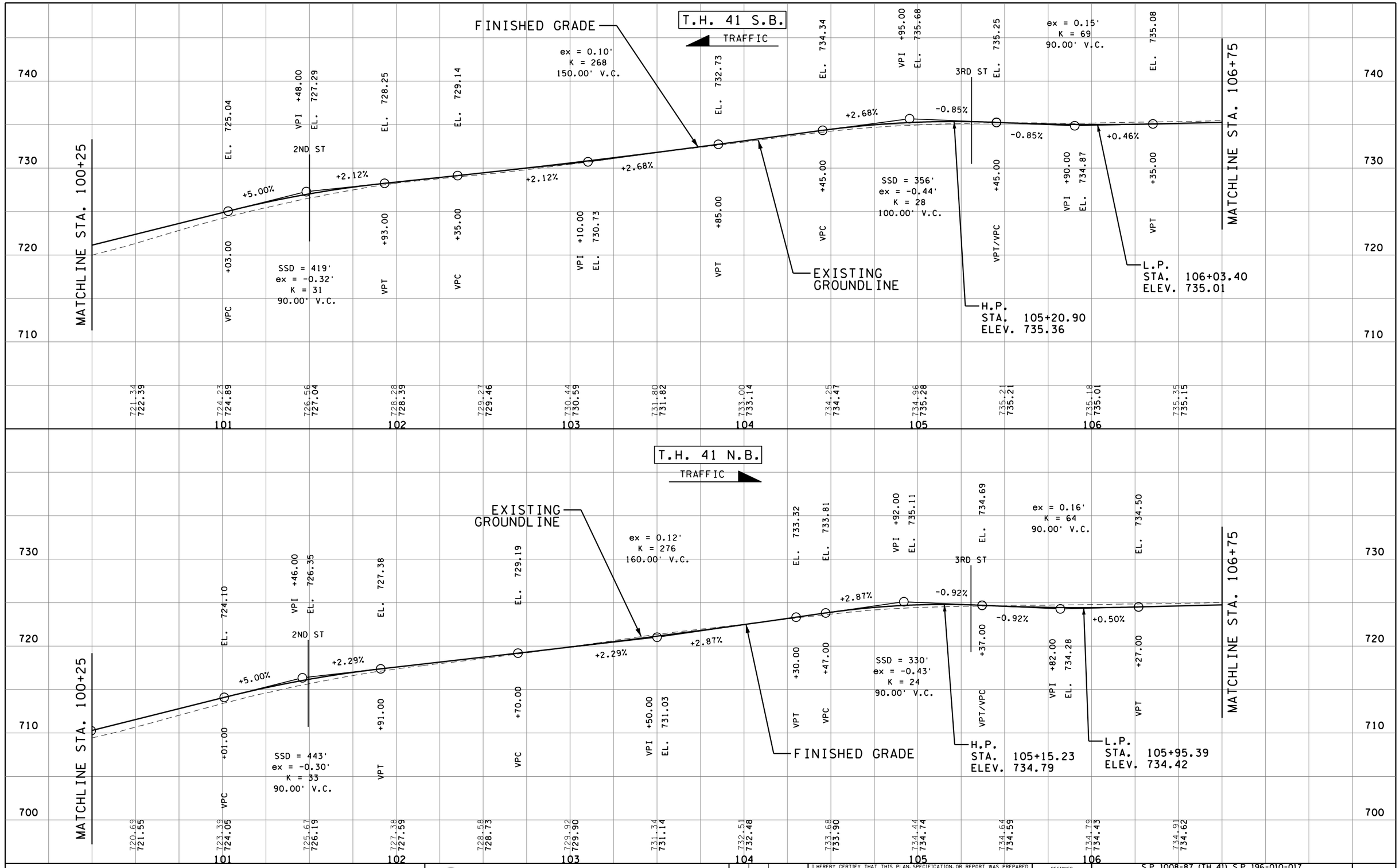
DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

CONSTRUCTION PROFILE

SHEET 132 OF 359


T.H. 41 S.B.
TRAFFIC
FINISHED GRADE
EXISTING GROUNDLINE
MATCHLINE STA. 100+25
MATCHLINE STA. 106+75
2ND ST
3RD ST
ex = 0.10'
K = 268
150.00' V.C.
SSD = 419'
ex = -0.32'
K = 31
90.00' V.C.
SSD = 356'
ex = -0.44'
K = 28
100.00' V.C.
ex = 0.15'
K = 69
90.00' V.C.
+5.00%
+2.12%
+2.12%
+2.68%
+2.68%
-0.85%
-0.85%
+0.46%
H.P.
STA. 105+20.90
ELEV. 735.36
L.P.
STA. 106+03.40
ELEV. 735.01
T.H. 41 N.B.
TRAFFIC
EXISTING GROUNDLINE
FINISHED GRADE
ex = 0.12'
K = 276
160.00' V.C.
SSD = 443'
ex = -0.30'
K = 33
90.00' V.C.
SSD = 330'
ex = -0.43'
K = 24
90.00' V.C.
ex = 0.16'
K = 64
90.00' V.C.
+5.00%
+2.29%
+2.29%
+2.87%
+2.87%
-0.92%
-0.92%
+0.50%
H.P.
STA. 105+15.23
ELEV. 734.79
L.P.
STA. 105+95.39
ELEV. 734.42
101
102
103
104
105
106
SCALE 0 25 50 FEET
BOLTON & MENK
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BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
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DATE 03-02-2022
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DRAWN TWB
CHECKED DMK
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PROFILE
SHEET 133 OF 359
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T.H. 41 S.B.

TRAFFIC

EXISTING GROUNDLINE

MATCHLINE STA. 106+75

MATCHLINE STA. 113+75

ENTRANCE

ENTRANCE

4TH ST

5TH ST

VPI +80.00 EL. 736.21

VPI +30.00 EL. 734.93

EL. 735.98

EL. 735.78

EL. 732.25

EL. 731.84

EL. 730.26

EL. 729.58

+0.46%

-0.85%

-0.85%

-2.68%

-2.68%

-0.85%

-0.85%

ex = 0.21'
K = 49
90.00' V.C.

ex = 0.23'
K = 54
100.00' V.C.

SSD = 873'
ex = -0.16'
K = 76
100.00' V.C.

SSD = 689'
ex = -0.46'
K = 109
200.00' V.C.

VPC +30.00

VPT/VPC +30.00

VPT +30.00

VPC +45.00

VPI +90.00 EL. 730.64

VPT +35.00

VPC +15.00

VPI +65.00 EL. 729.16

H.P.
STA. 108+71.96
ELEV. 735.60

FINISHED GRADE

L.P.
STA. 113+60.82
ELEV. 729.39

740
730
720

735.56 735.38 | 735.62 735.61 | 735.80 735.84 | 736.11 736.04 | 736.13 735.98 | 735.98 735.59 | 735.45 734.96 | 734.37 734.10 | 733.03 733.01 | 731.72 731.71 | 730.62 730.68 | 729.82 730.13 | 729.43 729.71 | 729.13 729.40

107 108 109 110 111 112 113

T.H. 41 N.B.

TRAFFIC

MATCHLINE STA. 106+75

MATCHLINE STA. 113+75

H.P.
STA. 108+65.08
ELEV. 736.06

L.P.
STA. 113+72.35
ELEV. 728.92

4TH ST

ENTRANCE

5TH ST

VPI +70.00 EL. 736.21

EL. 735.49

EL. 732.48

EL. 731.97

+0.50%

-2.57%

-2.57%

+1.22%

ex = 1.66'
K = 92
350.00' V.C.

SSD = 497'
ex = -1.11'
K = 95
290.00' V.C.

VPC +25.00

VPT +15.00

VPC +35.00

VPI +10.00 EL. 727.47

FINISHED GRADE

730
720
710
700

735.16 734.87 | 735.20 735.11 | 735.41 735.36 | 735.65 735.58 | 735.74 735.56 | 735.68 735.28 | 735.17 734.74 | 734.11 733.93 | 732.88 732.85 | 731.58 731.59 | 730.54 730.53 | 729.71 729.73 | 729.13 729.20 | 728.81 728.95

107 108 109 110 111 112 113

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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED BAU
DRAWN TWB
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PROFILE

SHEET 134 OF 359

T.H. 41 S.B.

TRAFFIC

MATCHLINE STA. 113+75

MATCHLINE STA. 119+75

EL. 729.66 | VPT +15.00 | +1.00%

EL. 730.56 | VPC +05.00

VPI +85.00 EL. 731.36 | +1.00% | -0.49%

EL. 730.96 | CSAH 61 EB

EL. 730.84 | CSAH 61 WB

ex = 0.15'
K = 67
90.00' V.C.

EL. 731.00 | VPT +80.00 | +0.85%

FINISHED GRADE

SSD = 804'
ex = -0.30'
K = 107
160.00' V.C.

VPT +65.00 | VPC +90.00 | -0.49%

VPI +35.00 EL. 730.62

H.P.
STA. 116+12.33
ELEV. 731.09

L.P.
STA. 117+22.84
ELEV. 730.76

PROPOSED 14'X 8'
BOX CULVERT

EXISTING
GROUNDLINE

740 / 730 / 720

729.10 729.53 | 730.00 730.01 | 730.21 730.51 | 730.46 730.91 | 730.40 731.09 | 730.36 731.03 | 730.50 730.80 | 730.75 730.82 | 730.93 731.18 | 731.17 731.60 | 731.48 732.03 | 731.88 732.46

114 | 115 | 116 | 117 | 118 | 119

T.H. 41 N.B.

TRAFFIC

MATCHLINE STA. 113+75

MATCHLINE STA. 119+75

VPT/VPC +85.00 EL. 729.61

VPI +85.00 EL. 730.82

H.P.
STA. 116+20.49
ELEV. 730.51

EL. 730.39 | CSAH 61 EB

EL. 730.31 | CSAH 61 WB

ex = 0.13'
K = 76
90.00' V.C.

EL. 730.35 | VPT +70.00 | +0.64%

EL. 731.30 | VPC +20.00

ENTRANCE

VPT +65.00 | VPC +80.00 | -0.55%

VPI +25.00 EL. 730.06

+1.22% | -0.55%

SSD = 701'
ex = -0.39'
K = 127
100.00' V.C.

SSD = 701'
ex = -0.39'
K = 82
80.00' V.C.

L.P.
STA. 117+21.51
ELEV. 730.19

EXISTING
GROUNDLINE

PROPOSED 14'X 8'
BOX CULVERT

FINISHED GRADE

740 / 730 / 720

728.58 728.96 | 729.21 729.24 | 730.03 729.78 | 730.23 730.23 | 730.22 730.48 | 730.24 730.46 | 730.30 730.22 | 730.37 730.25 | 730.56 730.54 | 730.88 730.86 | 731.21 731.18 | 731.61 731.51

114 | 115 | 116 | 117 | 118 | 119

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CHECKED	DMK

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PROFILE

SHEET 135 OF 359

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T.H. 41 S.B.

TRAFFIC

MATCHLINE STA. 119+75

ex = 0.09'
K = 112
90.00' V.C.

EL. 734.46

EL. 735.59

736.72

+0.85%

+1.66%

FINISHED GRADE

EXISTING GROUNDLINE

740

730

720

+85.00
VPC

VPI +30.00
EL. 734.85

+75.00
VPT

732.26 732.88 120
732.65 733.31
733.05 733.74 121
733.65 734.16
734.34 734.60 122
735.18 735.21
735.96 736.01 123
736.85
737.94 124
739.46
741.36 125
743.61

T.H. 41 N.B.

TRAFFIC

MATCHLINE STA. 119+75

ex = 0.46'
K = 333
350.00' V.C.

EL. 735.37

WALNUT ST EB

WALNUT ST WB

736.51

ENTRANCE

+0.64%

+1.69%

FINISHED GRADE

EXISTING GROUNDLINE

740

730

720

VPI +95.00
EL. 732.42

+70.00
VPT

732.02 731.91 120
732.43 732.39
732.90 732.94 121
733.54 733.56
734.25 734.27 122
735.05 735.04
735.83 735.88 123
736.73
737.85 124
739.40
741.36 125
743.63

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SCALE FEET

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DESIGNED	BAU
DRAWN	TWB
CHECKED	DMK

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

CONSTRUCTION PROFILE

SHEET 136 OF 359

C.S.A.H. 61 W.B.

TRAFFIC

MATCHLINE STA. 19+50

TH 41 SB

TH 41 NB

730.25

FINISHED GRADE

EL. 729.37

VPI +65.00 EL. 729.17

EL. 728.75

EL. 728.28

N WALNUT ST

EXISTING GROUNDLINE

ex = 0.29'
K = 111
160.00' V.C.

EL. 727.94

VPI +65.00 EL. 728.17

EL. 727.77 EL. 727.72

ENTRANCE

MATCHLINE STA. 26+50

-0.43%

-0.93%

-0.93%

+0.51%

+0.51%

-0.89%

VPC +20.00

SSD = 2196'
ex = -0.06'
K = 179
90.00' V.C.

VPT +10.00

VPC +60.00

VPI +40.00 EL. 727.54

VPT/VPC +20.00

SSD = 816'
ex = -0.16'
K = 64
90.00' V.C.

VPT VPC +10.00 +15.00

L.P.
STA. 24+63.80
ELEV. 727.80

H.P.
STA. 25+52.51
ELEV. 728.02

730.47 730.23 730.03 729.74 729.41 729.04 728.64 728.28 728.24 728.06 728.01 728.05 728.13 728.07
730.10 729.88 729.67 729.45 729.21 728.84 728.38 727.98 727.81 727.86 728.02 727.85

20 21 22 23 24 25 26

740 730 720

C.S.A.H. 61 E.B.

TRAFFIC

H.P.
STA. 25+49.67
ELEV. 727.99

MATCHLINE STA. 19+50

TH 41 SB

TH 41 NB

730.20

EL. 729.91

VPI +20.00 EL. 729.28

EXISTING GROUNDLINE

EL. 728.04

N WALNUT ST

ex = 0.20'
K = 97
125.00' V.C.

L.P.
STA. 24+54.32
ELEV. 727.73

EL. 727.85 EL. 727.89

VPI +55.00 EL. 728.11

EL. 727.83

EL. 727.67

MATCHLINE STA. 26+50

-0.40%

-0.79%

-0.79%

+0.50%

+0.50%

-0.63%

VPC +62.50

SSD = 2924'
ex = -0.15'
K = 808
315.00' V.C.

VPT/VPC +77.50

VPI +40.00 EL. 727.54

VPT VPC +02.50 +10.00

SSD = 1005'
ex = -0.13'
K = 80
90.00' V.C.

VPT VPC +00.00 +25.00

FINISHED GRADE

730.27 730.13 730.00 729.74 729.51 729.18 728.86 728.49 728.03 727.80 727.83 727.85 727.84
730.16 729.96 729.75 729.51 729.24 728.94 728.61 728.25 727.88 727.73 727.99 727.83

20 21 22 23 24 25 26

740 730 720

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SCALE FEET

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REV.	BY	DATE

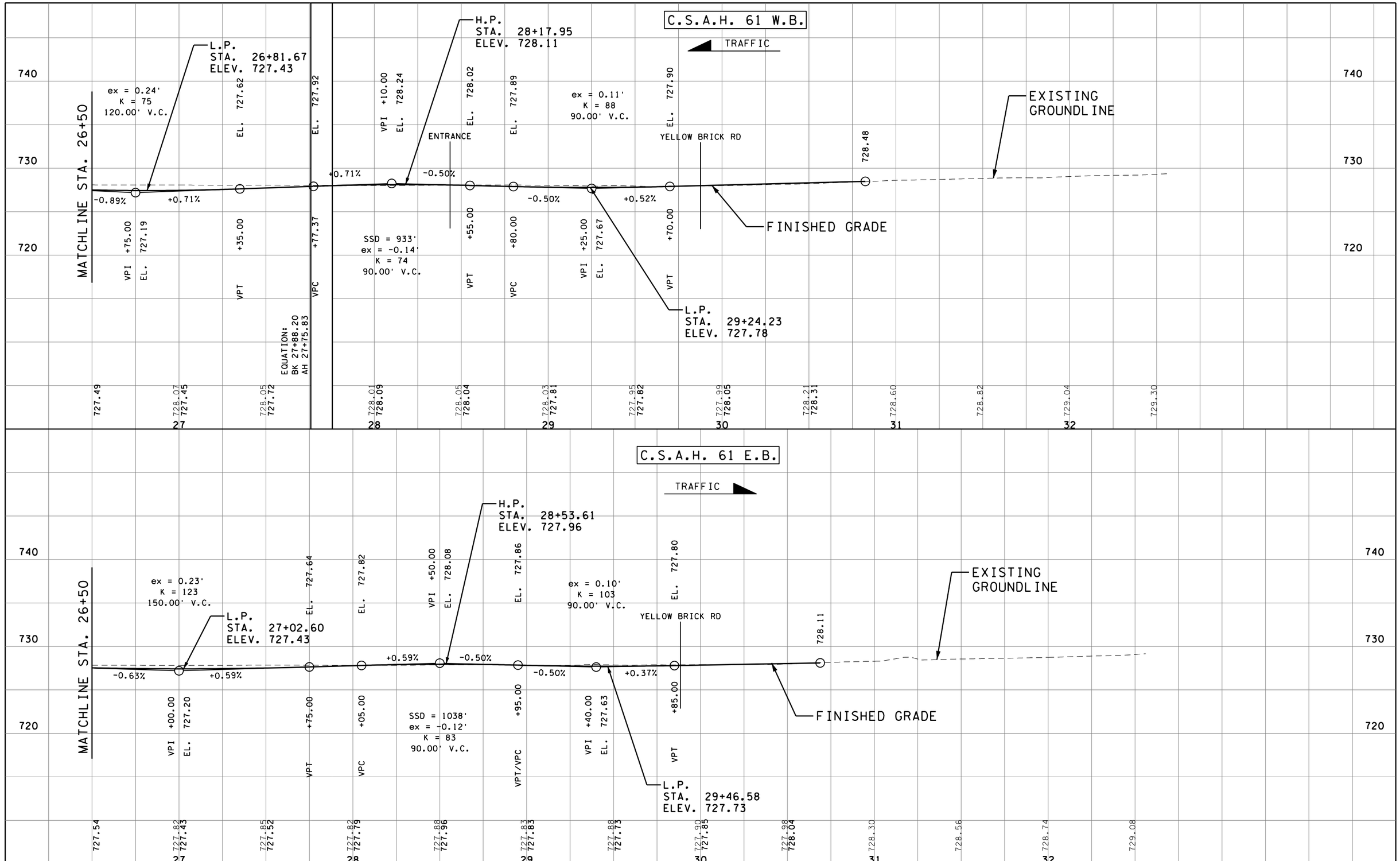
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DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PROFILE

SHEET 137 OF 359



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SCALE 0 25 50 FEET

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DENA M. KING LIC. NO. 45859 DATE 03-02-2022

DESIGNED	BAU
DRAWN	TWB
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PROFILE

SHEET 138 OF 359

UNDERPASS/TRAIL

740
730
720

SIDEWALK CONNECTION
730.99
EL. 730.85
VPI +66.00
EL. 730.23
EL. 729.27
-3.13%
-4.75%
+46.00
+86.00
VPC
VPT
SSD = 684'
ex = -0.08'
K = 25
40.00' V.C.

FINISHED GRADE

ex = 0.21'
K = 9
40.00' V.C.
EL. 719.01
EL. 720.06
PROPOSED
T.H. 41
TH 41 SB
TH 41 NB
MIN. COVER IS 2.2'
ex = 0.26'
K = 8
40.00' V.C.
EXISTING
GROUNDLINE
SIDEWALK CONNECTION
727.90
EL. 718.27
EL. 719.12
-4.75%
-0.50%
-0.50%
+4.75%
+80.00
+00.00
+20.00
+68.00
+88.00
+08.00
VPC
VPI
EL. 719.11
VPT
VPC
VPI
EL. 718.17
VPT

PROPOSED 14'X 8'
BOX CULVERT

L.P.
STA. 34+71.81
ELEV. 718.26

30 31 32 33 34 35 36 37

0 25 50
SCALE FEET

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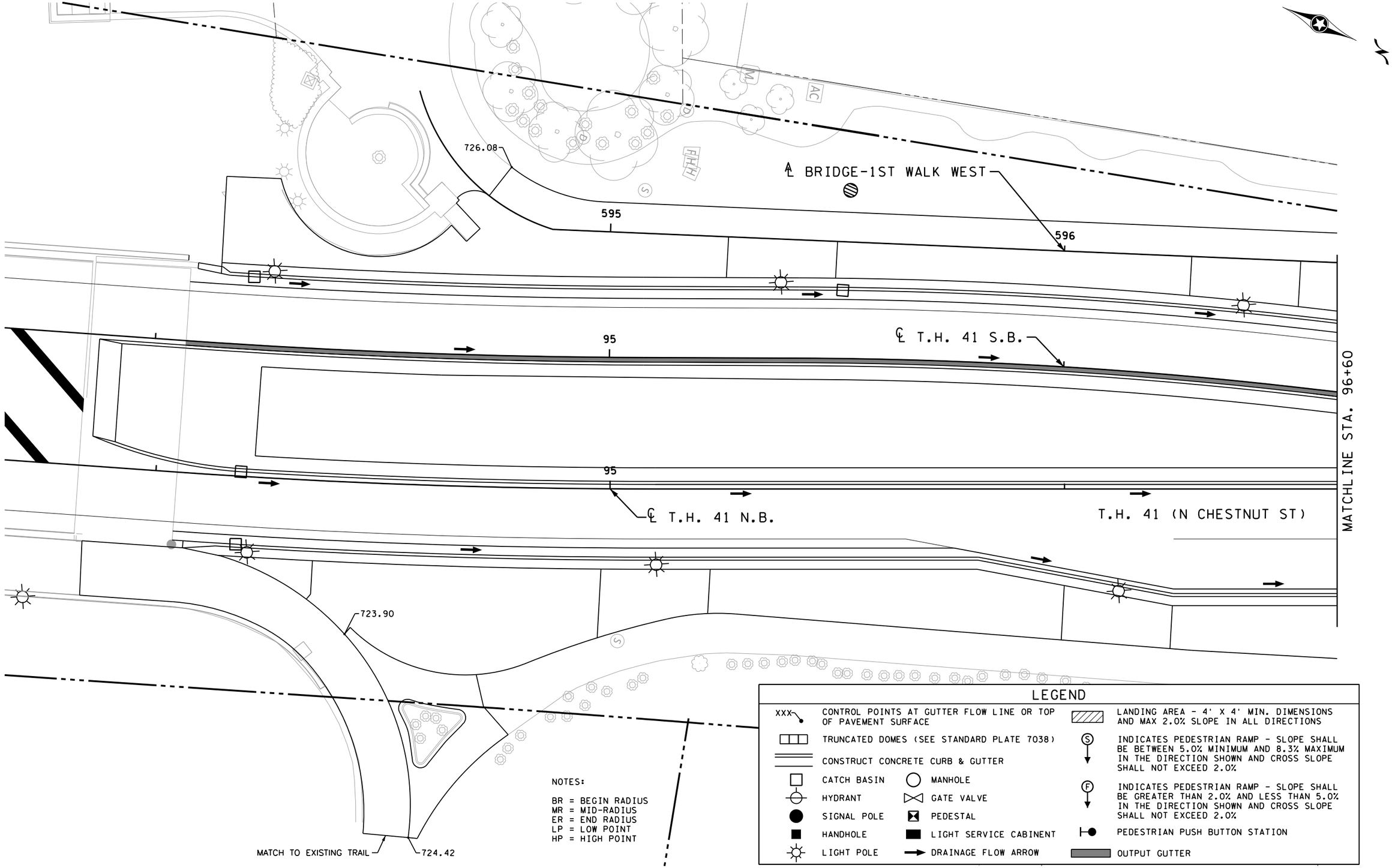
DENA M. KING
LIC. NO. 45859 DATE 03-02-2022

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CONSTRUCTION PROFILE

SHEET 139 OF 359

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Jenkins 3/18/2022

SCALE 0 10 20 FEET

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BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

DESIGNED BAU
DRAWN TWB
CHECKED DMK

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 140 OF 359

℄ BRIDGE-1ST WALK WEST

CONTROL POINTS

POINT NO.	X	Y
110	543261.02	152694.46
111	543285.05	152701.90
112	543282.61	152709.52
113	543276.24	152707.55
114	543273.04	152721.03
115	543266.32	152716.67
116	543265.60	152723.32
117	543258.16	152722.68
118	543257.15	152722.40
119	543220.98	152712.25
120	543216.55	152711.01
121	543206.37	152747.27
122	543210.25	152748.71
123	543237.46	152756.34
124	543246.61	152761.87
125	543249.67	152766.12
126	543251.11	152781.69
127	543250.58	152783.36

713.44 (120) 713.37 (121) 713.39(LP) (119) 713.34(LP) (122) W 1ST ST 714.86 (115) 715.01 (110) 714.31 (118) 714.33(ER) (117) 714.39 (124) 714.12(BR) (123) 714.71 (128) 714.47 (116) 715.03 (111) 715.04 (113) 714.61(MR) (114) 714.90(BR) (112) 714.46(MR) (125) 714.67(ER) (126) 714.69 (127) 598

℄ 1ST-2ND WALK WEST

NOTES:

BR = BEGIN RADIUS
MR = MID-RADIUS
ER = END RADIUS
LP = LOW POINT
HP = HIGH POINT

① REFER TO DRIVEWAY TABLE ON SHEET 29

MATCH TO EXISTING WALK 714.78 (129) 715.64 (130) 715.92 (131) RECONSTRUCT EXISTING STEP MATCH TO EXISTING WALK BEGIN NON-COMPLIANT RUNNING SLOPE OF 5.6% (+47) MATCH TO EXISTING WALK 717.89 717.18 599

T.H. 41 (N CHESTNUT ST)

℄ T.H. 41 S.B. 97

℄ T.H. 41 N.B. 97

MATCHLINE STA. 96+60

715.45 (132) 715.30 (133) 715.33 (134) 715.07 (135) 714.97 (136) 714.78 (137) 714.81 (138) 714.59 (139) 714.49 (140) 714.26 (141) 714.26 (142) 713.84(ER) (160) 713.86 (161) 713.82(BR/ER) (159) 714.28 (162) 498

CONTROL POINTS

POINT NO.	X	Y
146	543337.54	152726.94
147	543341.24	152737.21
148	543334.07	152741.55
149	543335.17	152743.42
150	543341.26	152749.36
151	543346.82	152751.76
152	543384.83	152761.67
153	543377.91	152788.20
154	543355.36	152782.76
155	543331.62	152775.94
156	543328.57	152775.06

CONTROL POINTS

POINT NO.	X	Y
157	543323.77	152774.30
158	543313.28	152776.83
159	543303.77	152788.94
160	543302.61	152793.18
161	543301.67	152796.66
162	543308.18	152798.37
163	543323.99	152802.53
164	543321.37	152782.65
165	543382.21	152771.73

MATCHLINE STA. 99+50

714.65 (144) 714.49(BR) (145) 714.17(MR) (148) 714.13 (149) 713.59(MR) (158) 713.40 (157) 714.71 (146) 714.18 (147) 714.00 (164) 714.17 (163) 713.32(BR) (156) 713.83(ER) (151) 713.97 (150) 714.81 (143) 713.26 (155) 712.98 (154) 712.45 (165) 712.90 (153) 712.29 (152) 499

714.80 714.87 MATCH WALK TO EXISTING ENTRANCE 716.76 716.85 MATCH WALK TO EXISTING ENTRANCE

MATCH WALK TO EXISTING ENTRANCE (714.88)

℄ 1ST-2ND WALK EAST

E 1ST ST

CONTROL POINTS

POINT NO.	X	Y
128	543239.31	152773.35
129	543247.08	152782.24
130	543238.71	152790.26
131	543232.42	152813.41
132	543300.33	152706.63
133	543297.90	152714.25
134	543308.14	152709.05
135	543313.13	152710.59
136	543310.24	152718.07
137	543276.31	152781.70
138	543273.86	152789.33
139	543277.82	152790.37
140	543284.68	152783.91
141	543288.30	152784.86
142	543286.20	152792.58
143	543358.24	152726.42
144	543336.10	152717.79
145	543333.19	152725.24

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
- MANHOLE
- HYDRANT
- GATE VALVE
- SIGNAL POLE
- PEDESTAL
- HANDHOLE
- LIGHT SERVICE CABINENT
- LIGHT POLE
- DRAINAGE FLOW ARROW
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER

SCALE 0 10 20 FEET

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BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

DESIGNED BAU
DRAWN TWB
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 141 OF 359

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CONTROL POINTS

POINT NO.	X	Y
181	543142.76	153070.32
182	543153.13	153082.45
183	543158.52	153091.84
184	543161.21	153075.35
185	543165.27	153085.20
186	543175.62	153082.02
187	543189.29	153092.72
188	543193.15	153093.77
189	543171.04	153091.06
190	543166.76	153095.27

CONTROL POINTS

POINT NO.	X	Y
191	543160.22	153098.90
192	543154.39	153100.31
193	543144.95	153099.61
194	543135.17	153096.96
195	543126.27	153118.95

CONTROL POINTS

POINT NO.	X	Y
196	543131.39	153120.42
197	543145.66	153131.15
198	543148.62	153150.98
199	543148.03	153153.15
200	543138.22	153160.85
201	543140.84	153151.20
202	543121.89	153145.93
203	543138.14	153141.28
204	543238.68	153106.93
205	543247.20	153106.45

CONTROL POINTS

POINT NO.	X	Y
206	543253.28	153099.03
207	543244.77	153096.77
208	543237.16	153101.47
209	543227.65	153100.29
210	543226.97	153104.60
211	543229.60	153115.48
212	543234.76	153121.38
213	543237.03	153118.50
214	543241.72	153124.83
215	543250.75	153127.28
216	543244.50	153150.36
217	543231.92	153147.26
218	543227.45	153146.59
219	543218.90	153147.55
220	543213.27	153149.99
221	543208.40	153163.29
222	543202.92	153161.80

CONTROL POINTS

POINT NO.	X	Y
223	543184.80	153166.63
224	543180.94	153165.58
225	543201.82	153165.00
226	543200.61	153169.47
227	543216.65	153171.85
228	543221.93	153166.95
229	543230.65	153175.63
230	543225.37	153154.27
231	543199.02	152936.27
232	543192.63	152959.78
233	543177.54	153015.28

CONTROL POINTS

POINT NO.	X	Y
234	543177.54	153015.28
235	543163.06	153011.35
236	543149.45	153007.65
237	543152.91	152995.80
238	543152.11	152995.48
239	543163.93	152951.98
240	543178.15	152955.85
241	543184.47	153015.28

NOTES:

BR = BEGIN RADIUS
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ER = END RADIUS
LP = LOW POINT
HP = HIGH POINT

① REFER TO DRIVEWAY TABLE ON SHEET 29

MATCHLINE STA. 99+50

MATCHLINE STA. 102+50

W 2ND ST

℄ 1ST-2ND WALK WEST

℄ 2ND-3RD WALK WEST

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

T.H. 41 (N CHESTNUT ST)

℄ 1ST-2ND WALK EAST

℄ 2ND-3RD WALK EAST

EXISTING SIGNAL POLE

EXISTING SIGNAL POLE & PB4-2

EXISTING SIGNAL CABINENT

CONCRETE CURB DESIGN V

SIDEWALK MUST DRAIN AWAY FROM WINDOWS

MATCH WALK TO EXISTING ENTRANCE (727.36)

ORNAMENTAL METAL RAILING DESIGN T-4 PC (50 LIN FT)

END NON-COMPLIANT RUNNING SLOPE OF 5.6% (+10)

NON-COMPLIANT CROSS SLOPE (MAX. CROSS SLOPE OF 3.7%)

NON-COMPLIANT CROSS SLOPE OF 2.4% (FOLLOWS ROADWAY PROFILE)

NON-COMPLIANT CROSS SLOPE OF 4.3% (FOLLOWS ROADWAY PROFILE)

NON-COMPLIANT CROSS SLOPE (MAX. CROSS SLOPE OF 4.6%)

OUTPUT GUTTER SLOPE

MATCH WALK TO PATIO CONNECTION

MATCH WALK TO EXISTING ALCOVE

MATCH WALK TO EXISTING ENTRANCE

BREAKLINE

POLE-4 & PB6-1

PB6-2

PB4-1

PB8-2

PB2-1

PB2-2

720.55 (239)
720.34 (238)
720.65 (236)
720.29 (237)
720.27 (235)
719.37 (241)
719.70 (240)
718.13 (231)
720.50 (232)
720.57 (234)
723.74 (233)
719.17
727.98 (181)
727.47 (182)
727.44 (183)
727.31 (184)
727.30 (185)
726.26(BR) (186)
726.80 (189)
725.77 (187)
725.58 (188)
728.23 (194)
729.16 (195)
729.06(BR) (196)
727.68(ER) (193)
729.20 (203)
730.23 (202)
729.34 (201)
730.01 (200)
727.41 (192)
727.30 (191)
726.91 (190)
728.98 (197)
729.26(ER) (198)
729.31 (199)
723.69(BR) (209)
723.91 (210)
724.01(MR) (211)
724.09(HP) (212)
723.86 (208)
724.27 (207)
724.16 (206)
724.13 (204)
724.13 (205)
724.19 (213)
725.14(BR) (217)
723.75(ER) (214)
723.41 (215)
724.43 (216)
725.40 (218)
725.56 (219)
725.85(MR) (220)
726.45 (222)
726.63 (221)
726.52(ER) (225)
726.60 (226)
727.63 (224)
727.45 (223)
726.73 (227)
726.85
726.59 (228)
725.83 (230)
726.35 (229)
727.52
727.61

+56 +66 +58 +48 +55 +65

1.5% 0.5% 1.5%

600 601 602 101 102 501 502

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
- MANHOLE
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- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER

SIGNAL CONTROL POINTS

POINT NO.	X	Y	DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
PB2-1	543238.32	153116.97	2.0	7.9
PB2-2	543224.84	153156.20	2.0	2.0
PB4-1	543163.23	153083.61	2.6	7.4
PB6-2	543152.22	153091.30	2.0	9.2
PB8-1	543208.24	153171.53	2.0	7.1
PB8-2	543139.97	153150.58	7.8	4.3
POLE-4/PB6-1	543140.92	153134.06	4.9	8.0

SCALE 0 10 20 FEET

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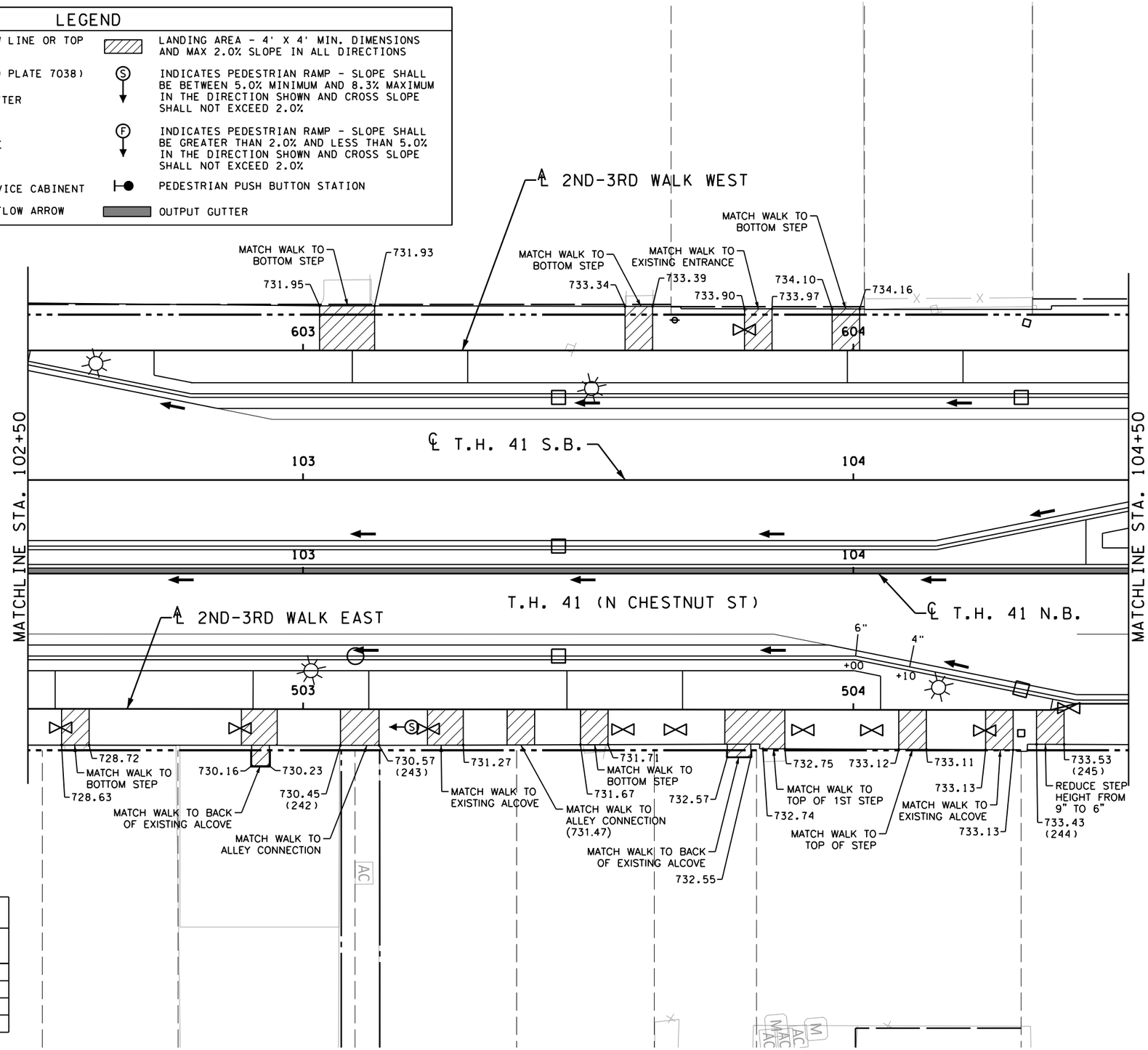
SIDEWALK DETAIL PLAN

SHEET 142 OF 359

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jenskirk

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
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- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER



CONTROL POINTS

POINT NO.	X	Y
242	543185.88	153285.72
243	543184.05	153292.47
244	543152.62	153407.75
245	543151.32	153412.58

SCALE 0 10 20 FEET

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Benjamin A Ulrich

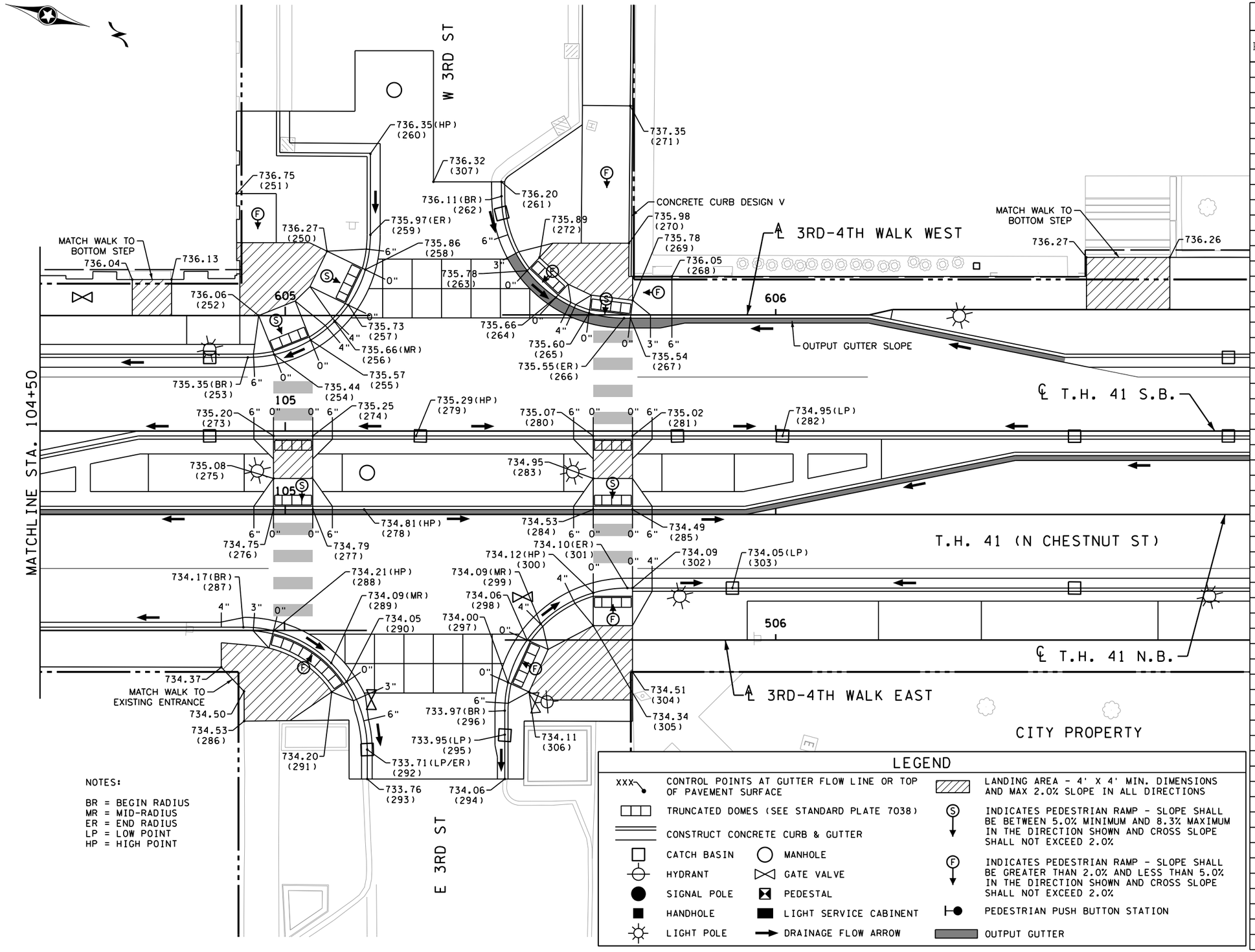
BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 143 OF 359

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NOTES:

BR = BEGIN RADIUS
MR = MID-RADIUS
ER = END RADIUS
LP = LOW POINT
HP = HIGH POINT

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
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- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER

CONTROL POINTS

POINT NO.	X	Y
250	543051.20	153458.21
251	543044.70	153437.35
252	543067.50	153448.20
253	543076.33	153448.29
254	543074.36	153453.32
255	543069.57	153459.73
256	543064.63	153463.44
257	543060.66	153465.27
258	543052.79	153466.74
259	543045.66	153465.88
260	543029.71	153461.56
261	543028.24	153488.83
262	543031.08	153489.61
263	543044.35	153498.64
264	543048.09	153505.71
265	543049.39	153513.08
266	543048.53	153520.25
267	543048.19	153521.50
268	543037.78	153527.43
269	543044.56	153520.98
270	543033.51	153517.20
271	543006.43	153510.13
272	543041.10	153500.36
273	543090.39	153457.55
274	543088.30	153465.27
275	543098.76	153459.81
276	543104.87	153461.47
277	543102.78	153469.19
278	543100.04	153479.29
279	543082.79	153485.59
280	543073.34	153520.45
281	543071.25	153528.17
282	543063.24	153557.71
283	543081.71	153522.71
284	543087.82	153524.37
285	543085.73	153532.09
286	543148.07	153466.98
287	543129.65	153461.81
288	543128.72	153467.92
289	543132.01	153481.00
290	543134.87	153485.03
291	543137.66	153482.65
292	543147.10	153492.71
293	543152.89	153494.29
294	543145.56	153521.35
295	543134.36	153518.31
296	543132.11	153517.70
297	543126.40	153516.84
298	543117.02	153518.34
299	543113.13	153520.14
300	543104.22	153528.82
301	543101.44	153535.29
302	543101.17	153536.28
303	543095.84	153555.94
304	543117.68	153540.75
305	543110.68	153530.57
306	543127.14	153521.46
307	543031.87	153475.45

SCALE 0 10 20 FEET

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BOLTON & MENK

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REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

DESIGNED BAU
DRAWN TWB
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 144 OF 359

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3/3/2022
Benjamin.Ulrich

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
- MANHOLE
- HYDRANT
- GATE VALVE
- SIGNAL POLE
- PEDESTAL
- HANDHOLE
- LIGHT SERVICE CABINENT
- LIGHT POLE
- DRAINAGE FLOW ARROW
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER

NOTES:

BR = BEGIN RADIUS
MR = MID-RADIUS
ER = END RADIUS
LP = LOW POINT
HP = HIGH POINT

① REFER TO DRIVEWAY TABLE ON SHEET 29

② MATCH EXISTING FLOW LINE

SIGNAL CONTROL POINTS

POINT NO.	X	Y	DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
PB2-1	543036.98	153849.21	2.0	3.0
PB2-2	543023.80	153898.64	4.9	4.4
PB4-1	542969.39	153812.72	1.8	6.7
PB4-2	543035.26	153831.65	2.0	8.3
PB6-1	542941.27	153869.18	4.0	16.1
PB6-2	542955.99	153818.55	2.0	8.9
PB8-1	543009.29	153906.10	2.0	8.7
PB8-2	542942.45	153886.11	7.0	5.5
POLE-3	543046.52	153844.71		

CONTROL POINTS

POINT NO.	X	Y
320	153819.08	542996.53
321	153818.04	542992.67
322	153806.95	542947.33
323	153809.78	542957.74
324	153805.77	542979.42
325	153812.89	542971.68
326	153815.27	542974.47
327	153820.92	542967.73
328	153824.21	542956.27
329	153823.36	542948.75
330	153820.55	542956.09
331	153806.79	542902.94
332	153811.18	542903.82
333	153808.72	542902.41
334	153860.61	542920.95
335	153858.48	542930.15
336	153860.77	542938.61
337	153866.26	542944.91
338	153872.86	542948.80
339	153888.12	542949.84
340	153888.64	542949.70
341	153892.18	542941.84
342	153886.39	542943.41
343	153882.84	542930.27
344	153869.18	542941.27
345	153833.83	543043.29
346	153830.17	543029.79
347	153832.34	543029.20
348	153847.37	543029.82
349	153852.17	543032.15
350	153859.33	543038.95

CONTROL POINTS

POINT NO.	X	Y
351	153861.22	543045.91
352	153850.25	543035.28
353	153859.38	543052.00
354	153846.72	543063.07
355	153902.96	543047.53
356	153895.31	543043.14
357	153892.50	543039.51
358	153890.75	543033.05
359	153893.85	543022.92
360	153890.24	543022.27
361	153893.19	543014.08

CONTROL POINTS

POINT NO.	X	Y
362	153903.46	543004.27
363	153908.34	543002.38
364	153908.27	543023.15
365	153918.60	543014.87
366	153900.40	542985.99
367	153899.32	542982.03

CONTROL POINTS

POINT NO.	X	Y
368	153971.92	543015.05
369	153970.41	543009.31
370	153975.25	543004.49
371	153976.54	542999.64
372	153992.98	542995.30
373	154003.91	543001.66

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 145 OF 359

SCALE 0 10 20 FEET

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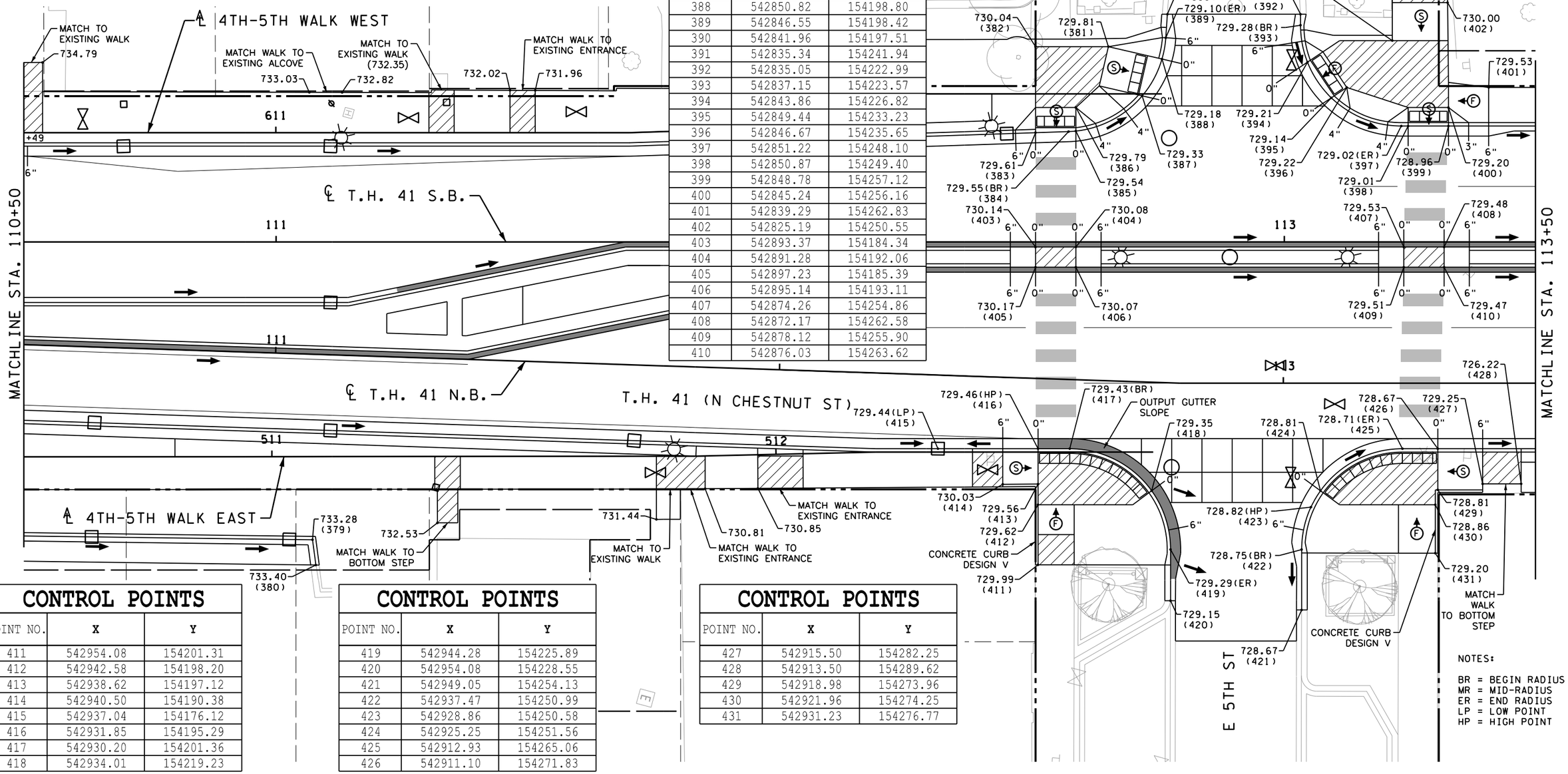
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LEGEND

- CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
- MANHOLE
- HYDRANT
- GATE VALVE
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- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER

CONTROL POINTS

POINT NO.	X	Y
379	542986.95	154061.11
380	542991.61	154063.05
381	542851.23	154187.89
382	542855.01	154173.94
383	542871.48	154178.41
384	542869.55	154184.67
385	542869.08	154186.04
386	542864.57	154184.82
387	542858.89	154196.92
388	542850.82	154198.80
389	542846.55	154198.42
390	542841.96	154197.51
391	542835.34	154241.94
392	542835.05	154222.99
393	542837.15	154223.57
394	542843.86	154226.82
395	542849.44	154233.23
396	542846.67	154235.65
397	542851.22	154248.10
398	542850.87	154249.40
399	542848.78	154257.12
400	542845.24	154256.16
401	542839.29	154262.83
402	542825.19	154250.55
403	542893.37	154184.34
404	542891.28	154192.06
405	542897.23	154185.39
406	542895.14	154193.11
407	542874.26	154254.86
408	542872.17	154262.58
409	542878.12	154255.90
410	542876.03	154263.62



CONTROL POINTS

POINT NO.	X	Y
411	542954.08	154201.31
412	542942.58	154198.20
413	542938.62	154197.12
414	542940.50	154190.38
415	542937.04	154176.12
416	542931.85	154195.29
417	542930.20	154201.36
418	542934.01	154219.23

CONTROL POINTS

POINT NO.	X	Y
419	542944.28	154225.89
420	542954.08	154228.55
421	542949.05	154254.13
422	542937.47	154250.99
423	542928.86	154250.58
424	542925.25	154251.56
425	542912.93	154265.06
426	542911.10	154271.83

CONTROL POINTS

POINT NO.	X	Y
427	542915.50	154282.25
428	542913.50	154289.62
429	542918.98	154273.96
430	542921.96	154274.25
431	542931.23	154276.77

NOTES:

BR = BEGIN RADIUS
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SCALE 0 10 20 FEET

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIDEWALK DETAIL PLAN

SHEET 146 OF 359

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3/18/2022
benjamin.ulrich

CONTROL POINTS

POINT NO.	X	Y
450	542743.99	154518.91
451	542764.97	154506.26
452	542764.60	154517.92
453	542785.95	154488.88
454	542782.20	154498.72
455	542767.01	154520.67
456	542748.52	154531.57
457	542738.71	154534.06
458	542725.55	154534.59
459	542715.39	154531.82
460	542706.22	154565.60
461	542734.86	154573.42
462	542732.75	154581.13
463	542704.13	154573.32
464	542698.37	154594.55
465	542652.09	154584.01
466	542653.15	154580.13
467	542671.99	154587.35
468	542674.79	154592.71
469	542697.49	154601.42
470	542717.24	154615.20
471	542723.12	154623.51
472	542728.91	154639.92

CONTROL POINTS

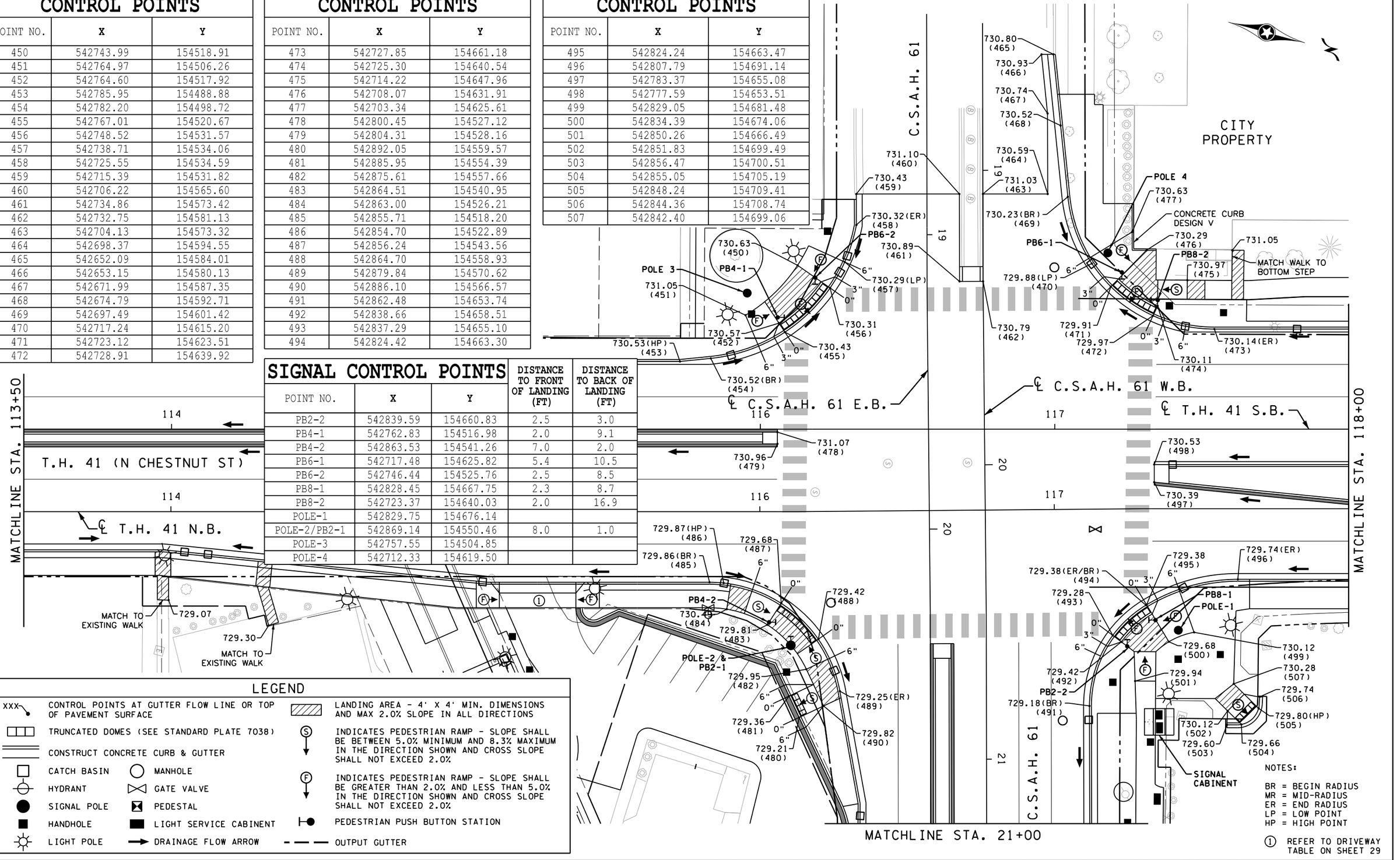
POINT NO.	X	Y
473	542727.85	154661.18
474	542725.30	154640.54
475	542714.22	154647.96
476	542708.07	154631.91
477	542703.34	154625.61
478	542800.45	154527.12
479	542804.31	154528.16
480	542892.05	154559.57
481	542885.95	154554.39
482	542875.61	154557.66
483	542864.51	154540.95
484	542863.00	154526.21
485	542855.71	154518.20
486	542854.70	154522.89
487	542856.24	154543.56
488	542864.70	154558.93
489	542879.84	154570.62
490	542886.10	154566.57
491	542862.48	154653.74
492	542838.66	154658.51
493	542837.29	154655.10
494	542824.42	154663.30

CONTROL POINTS

POINT NO.	X	Y
495	542824.24	154663.47
496	542807.79	154691.14
497	542783.37	154655.08
498	542777.59	154653.51
499	542829.05	154681.48
500	542834.39	154674.06
501	542850.26	154666.49
502	542851.83	154699.49
503	542856.47	154700.51
504	542855.05	154705.19
505	542848.24	154709.41
506	542844.36	154708.74
507	542842.40	154699.06

SIGNAL CONTROL POINTS

POINT NO.	X	Y	DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
PB2-2	542839.59	154660.83	2.5	3.0
PB4-1	542762.83	154516.98	2.0	9.1
PB4-2	542863.53	154541.26	7.0	2.0
PB6-1	542717.48	154625.82	5.4	10.5
PB6-2	542746.44	154525.76	2.5	8.5
PB8-1	542828.45	154667.75	2.3	8.7
PB8-2	542723.37	154640.03	2.0	16.9
POLE-1	542829.75	154676.14		
POLE-2/PB2-1	542869.14	154550.46	8.0	1.0
POLE-3	542757.55	154504.85		
POLE-4	542712.33	154619.50		



LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
- MANHOLE
- HYDRANT
- GATE VALVE
- SIGNAL POLE
- PEDESTAL
- HANDHOLE
- LIGHT SERVICE CABINENT
- LIGHT POLE
- DRAINAGE FLOW ARROW
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER

NOTES:

BR = BEGIN RADIUS
MR = MID-RADIUS
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LP = LOW POINT
HP = HIGH POINT

① REFER TO DRIVEWAY TABLE ON SHEET 29

SCALE 0 15 30 FEET

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BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

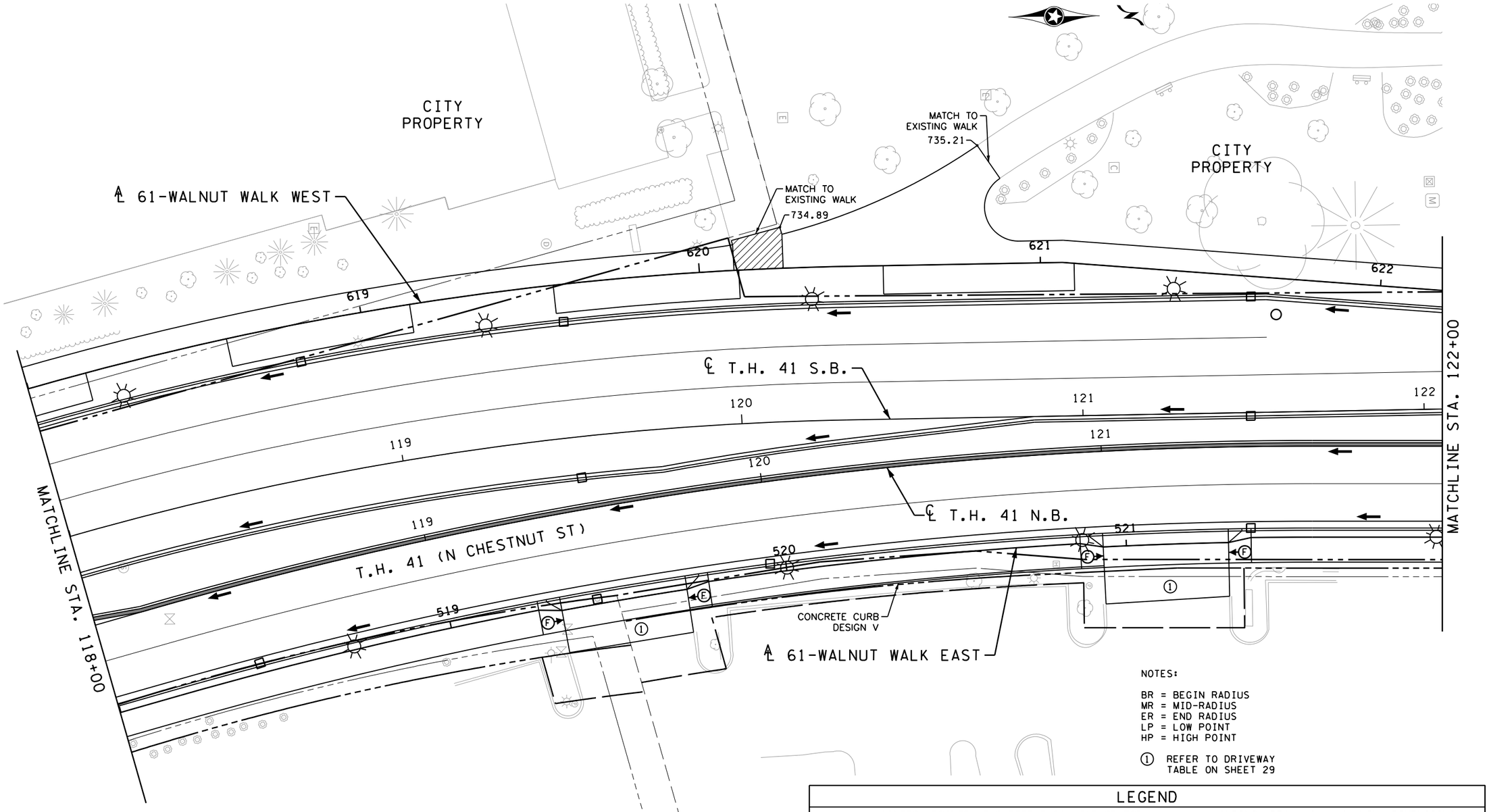
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIDEWALK DETAIL PLAN

SHEET 147 OF 359

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NOTES:

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① REFER TO DRIVEWAY TABLE ON SHEET 29

LEGEND

XXX	CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE		LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
	TRUNCATED DOMES (SEE STANDARD PLATE 7038)	(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
	CONSTRUCT CONCRETE CURB & GUTTER	(F)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
	CATCH BASIN / MANHOLE		
	HYDRANT / GATE VALVE		
	SIGNAL POLE / PEDESTAL		
	HANDHOLE / LIGHT SERVICE CABINENT		PEDESTRIAN PUSH BUTTON STATION
	LIGHT POLE / DRAINAGE FLOW ARROW		OUTPUT GUTTER

SCALE 0 15 30 FEET

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SIDEWALK DETAIL PLAN

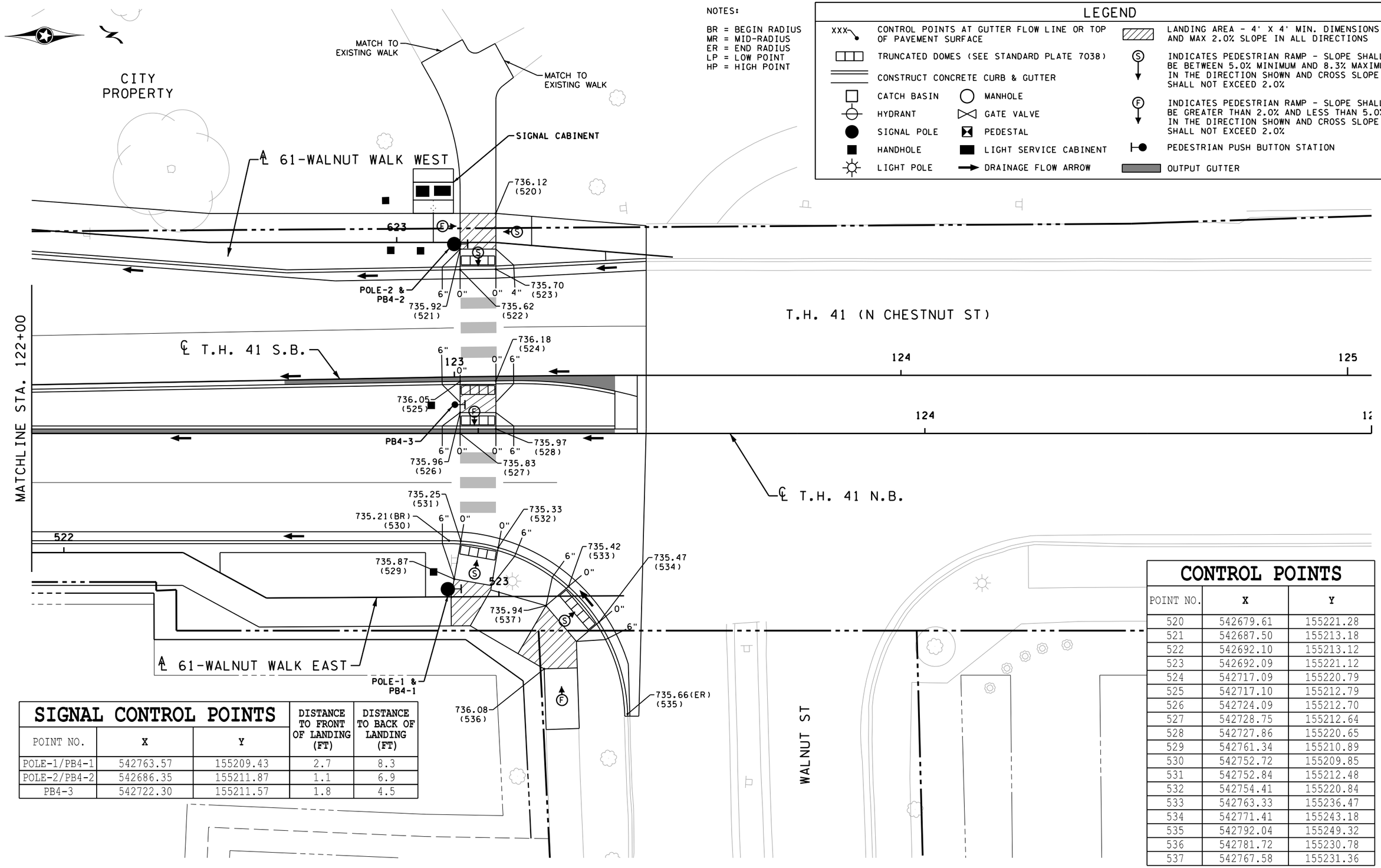
SHEET 148 OF 359

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- OUTPUT GUTTER



SIGNAL CONTROL POINTS

POINT NO.	X	Y	DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
POLE-1/PB4-1	542763.57	155209.43	2.7	8.3
POLE-2/PB4-2	542686.35	155211.87	1.1	6.9
PB4-3	542722.30	155211.57	1.8	4.5

CONTROL POINTS

POINT NO.	X	Y
520	542679.61	155221.28
521	542687.50	155213.18
522	542692.10	155213.12
523	542692.09	155221.12
524	542717.09	155220.79
525	542717.10	155212.79
526	542724.09	155212.70
527	542728.75	155212.64
528	542727.86	155220.65
529	542761.34	155210.89
530	542752.72	155209.85
531	542752.84	155212.48
532	542754.41	155220.84
533	542763.33	155236.47
534	542771.41	155243.18
535	542792.04	155249.32
536	542781.72	155230.78
537	542767.58	155231.36

SCALE 0 10 20 FEET

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BOLTON & MENK

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REV.	BY	DATE

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BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

DESIGNED BAU
DRAWN TWB
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 149 OF 359

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Benjamin.Ulrich
3/3/2022

CONTROL POINTS

POINT NO.	X	Y
550	543094.06	154791.12
551	543091.45	154777.03
552	543095.09	154776.60
553	543088.12	154758.16
554	543079.06	154748.89
555	543068.75	154754.16
556	543074.89	154767.29
557	543077.74	154790.43
559	543090.76	154803.87
560	543082.73	154840.85

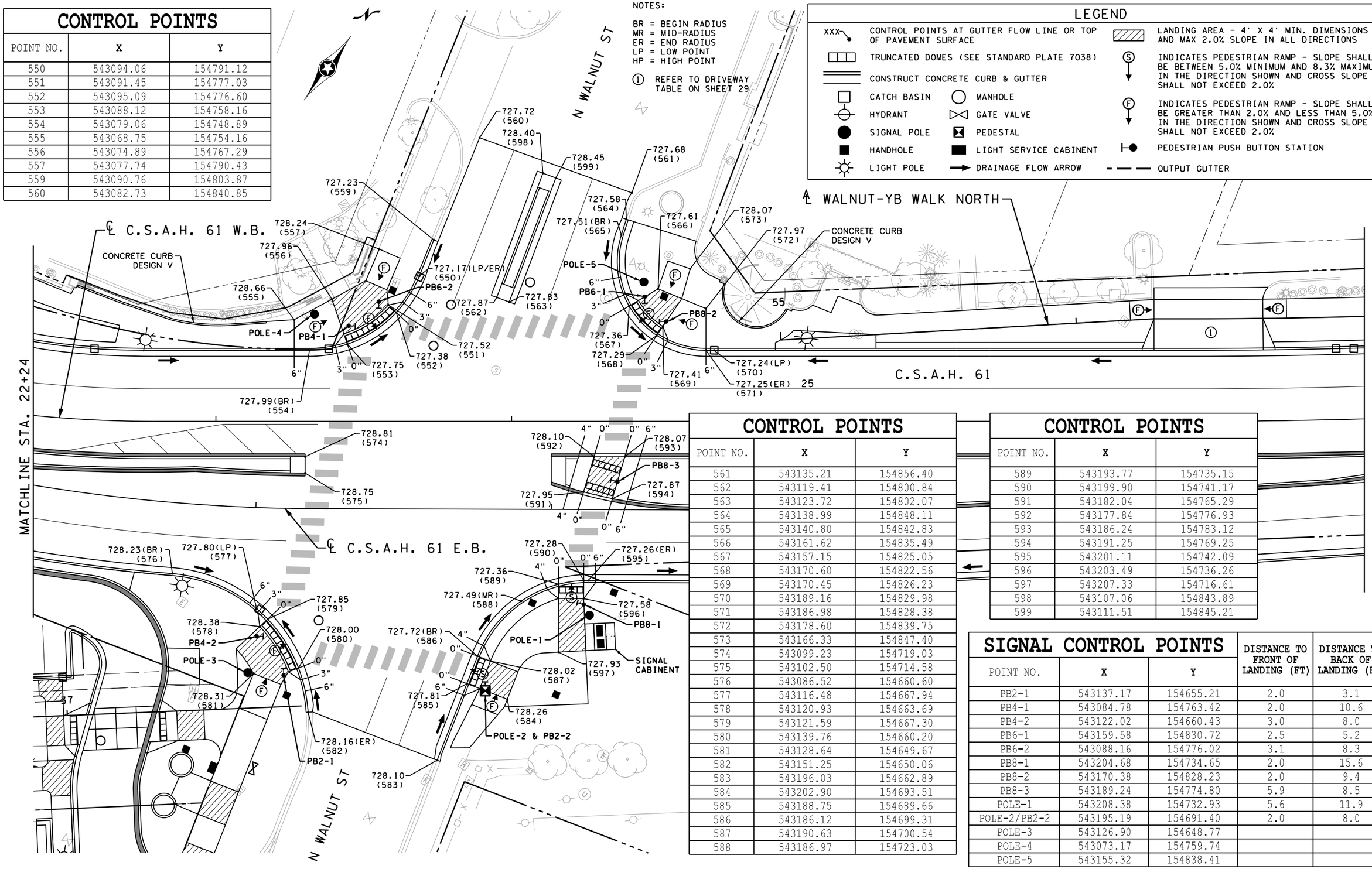
NOTES:

BR = BEGIN RADIUS
MR = MID-RADIUS
ER = END RADIUS
LP = LOW POINT
HP = HIGH POINT

① REFER TO DRIVEWAY TABLE ON SHEET 29

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
- MANHOLE
- HYDRANT
- GATE VALVE
- SIGNAL POLE
- PEDESTAL
- HANDHOLE
- LIGHT SERVICE CABINENT
- LIGHT POLE
- DRAINAGE FLOW ARROW
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- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER



CONTROL POINTS

POINT NO.	X	Y
561	543135.21	154856.40
562	543119.41	154800.84
563	543123.72	154802.07
564	543138.99	154848.11
565	543140.80	154842.83
566	543161.62	154835.49
567	543157.15	154825.05
568	543170.60	154822.56
569	543170.45	154826.23
570	543189.16	154829.98
571	543186.98	154828.38
572	543178.60	154839.75
573	543166.33	154847.40
574	543099.23	154719.03
575	543102.50	154714.58
576	543086.52	154660.60
577	543116.48	154667.94
578	543120.93	154663.69
579	543121.59	154667.30
580	543139.76	154660.20
581	543128.64	154649.67
582	543151.25	154650.06
583	543196.03	154662.89
584	543202.90	154693.51
585	543188.75	154689.66
586	543186.12	154699.31
587	543190.63	154700.54
588	543186.97	154723.03

CONTROL POINTS

POINT NO.	X	Y
589	543193.77	154735.15
590	543199.90	154741.17
591	543182.04	154765.29
592	543177.84	154776.93
593	543186.24	154783.12
594	543191.25	154769.25
595	543201.11	154742.09
596	543203.49	154736.26
597	543207.33	154716.61
598	543107.06	154843.89
599	543111.51	154845.21

SIGNAL CONTROL POINTS

POINT NO.	X	Y	DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
PB2-1	543137.17	154655.21	2.0	3.1
PB4-1	543084.78	154763.42	2.0	10.6
PB4-2	543122.02	154660.43	3.0	8.0
PB6-1	543159.58	154830.72	2.5	5.2
PB6-2	543088.16	154776.02	3.1	8.3
PB8-1	543204.68	154734.65	2.0	15.6
PB8-2	543170.38	154828.23	2.0	9.4
PB8-3	543189.24	154774.80	5.9	8.5
POLE-1	543208.38	154732.93	5.6	11.9
POLE-2/PB2-2	543195.19	154691.40	2.0	8.0
POLE-3	543126.90	154648.77		
POLE-4	543073.17	154759.74		
POLE-5	543155.32	154838.41		

SCALE 0 20 30 FEET

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 150 OF 359

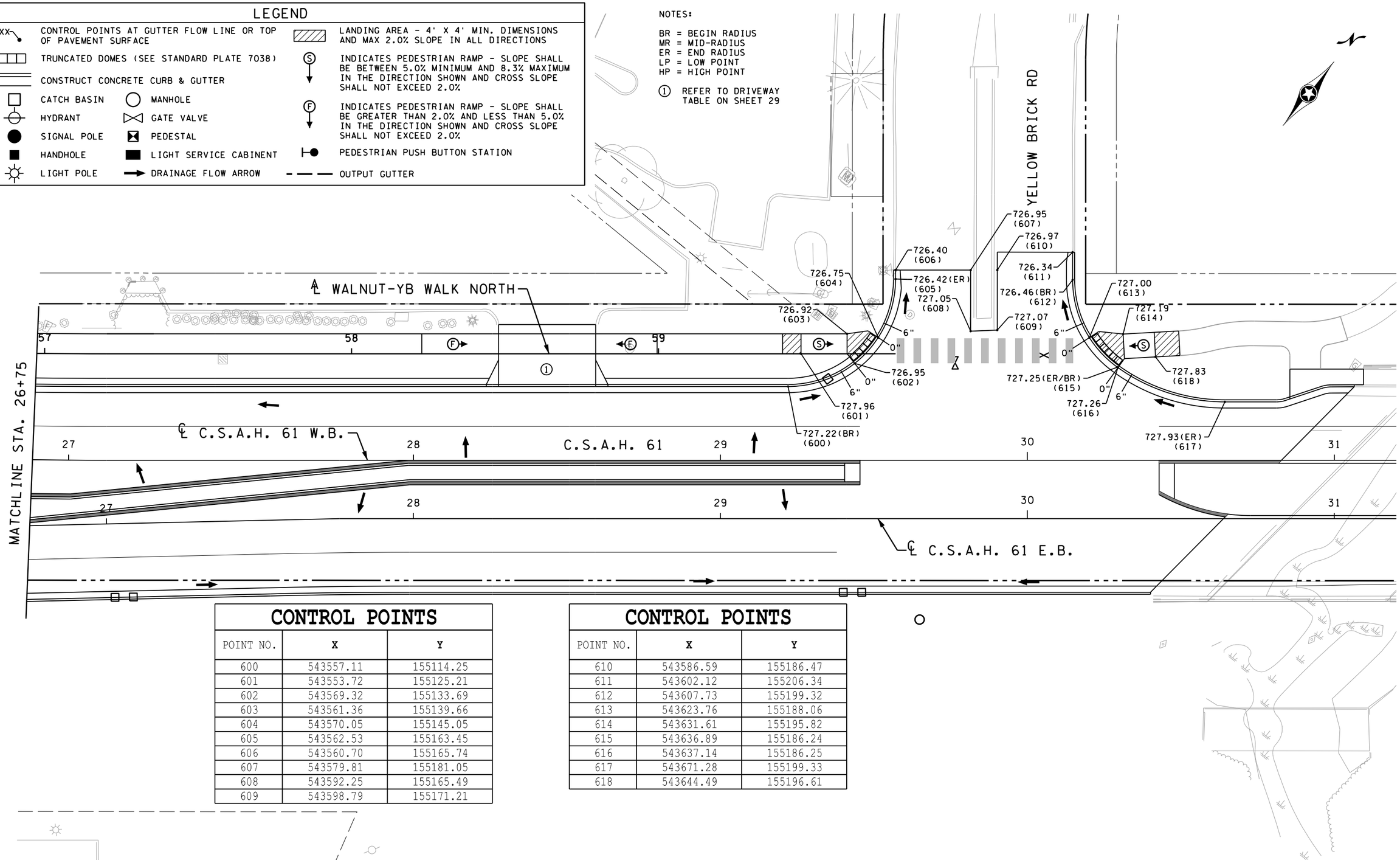
LEGEND

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- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
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- OUTPUT GUTTER

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① REFER TO DRIVEWAY TABLE ON SHEET 29



CONTROL POINTS

POINT NO.	X	Y
600	543557.11	155114.25
601	543553.72	155125.21
602	543569.32	155133.69
603	543561.36	155139.66
604	543570.05	155145.05
605	543562.53	155163.45
606	543560.70	155165.74
607	543579.81	155181.05
608	543592.25	155165.49
609	543598.79	155171.21

CONTROL POINTS

POINT NO.	X	Y
610	543586.59	155186.47
611	543602.12	155206.34
612	543607.73	155199.32
613	543623.76	155188.06
614	543631.61	155195.82
615	543636.89	155186.24
616	543637.14	155186.25
617	543671.28	155199.33
618	543644.49	155196.61

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SCALE 0 15 30 FEET

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DRAWN	TWB
CHECKED	DMK

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIDEWALK DETAIL PLAN

SHEET 151 OF 359

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
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- OUTPUT GUTTER

CONTROL POINTS

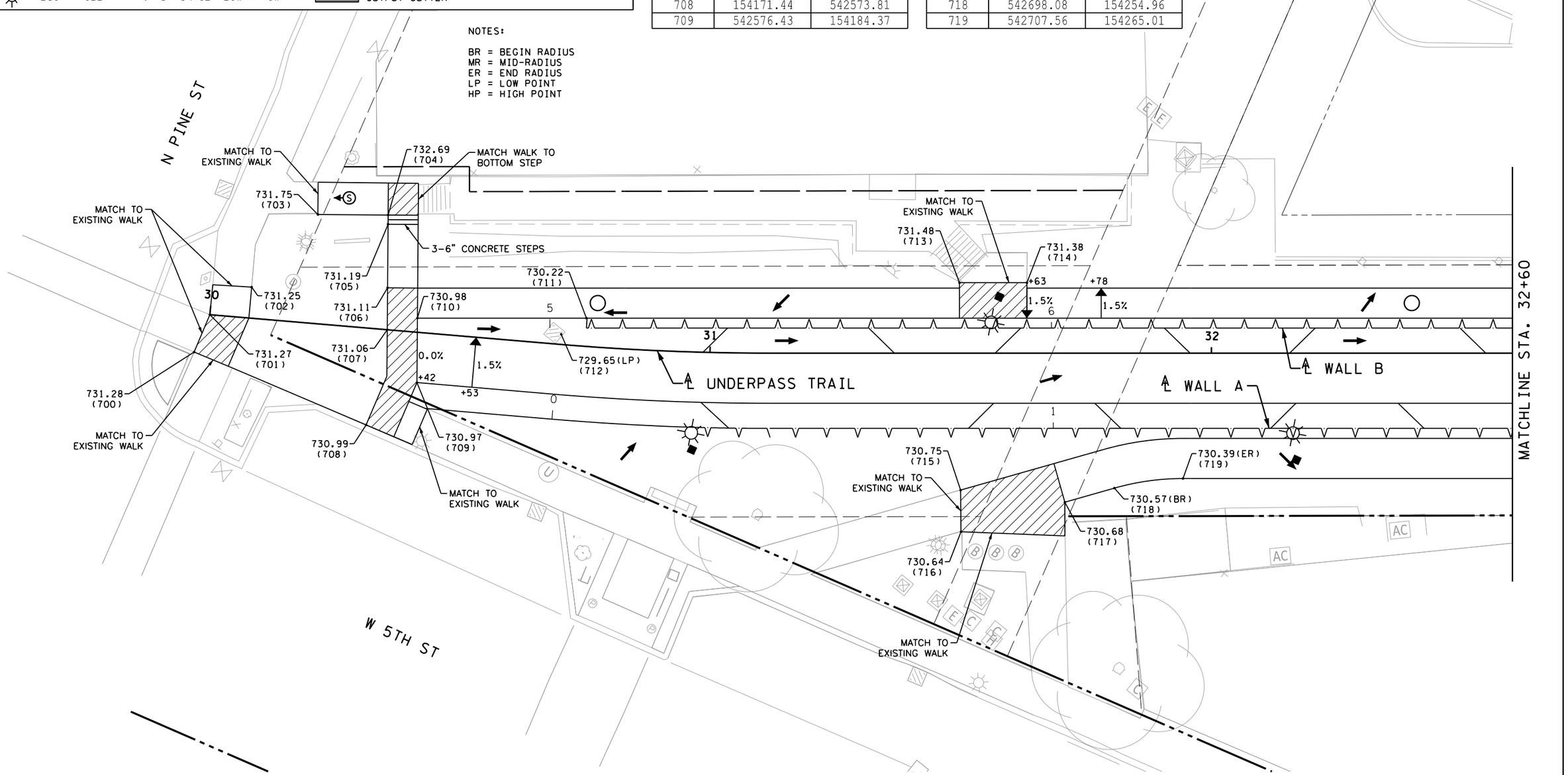
POINT NO.	X	Y
700	542537.97	154161.32
701	542535.77	154169.10
702	542538.81	154178.59
703	542540.05	154198.17
704	154206.85	542551.04
705	154205.41	542552.18
706	154195.45	542560.03
707	154188.88	542565.22
708	154171.44	542573.81
709	542576.43	154184.37

CONTROL POINTS

POINT NO.	X	Y
710	542568.46	154194.46
711	542594.74	154215.54
712	542592.84	154209.88
713	542648.36	154267.60
714	542658.84	154276.02
715	542674.42	154235.46
716	542679.68	154229.05
717	542692.14	154246.59
718	542698.08	154254.96
719	542707.56	154265.01

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SCALE 0 10 20 FEET

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIDEWALK DETAIL PLAN

SHEET 152 OF 359

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LEGEND

- CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
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(1) REFER TO DRIVEWAY TABLE ON SHEET 29

CONTROL POINTS

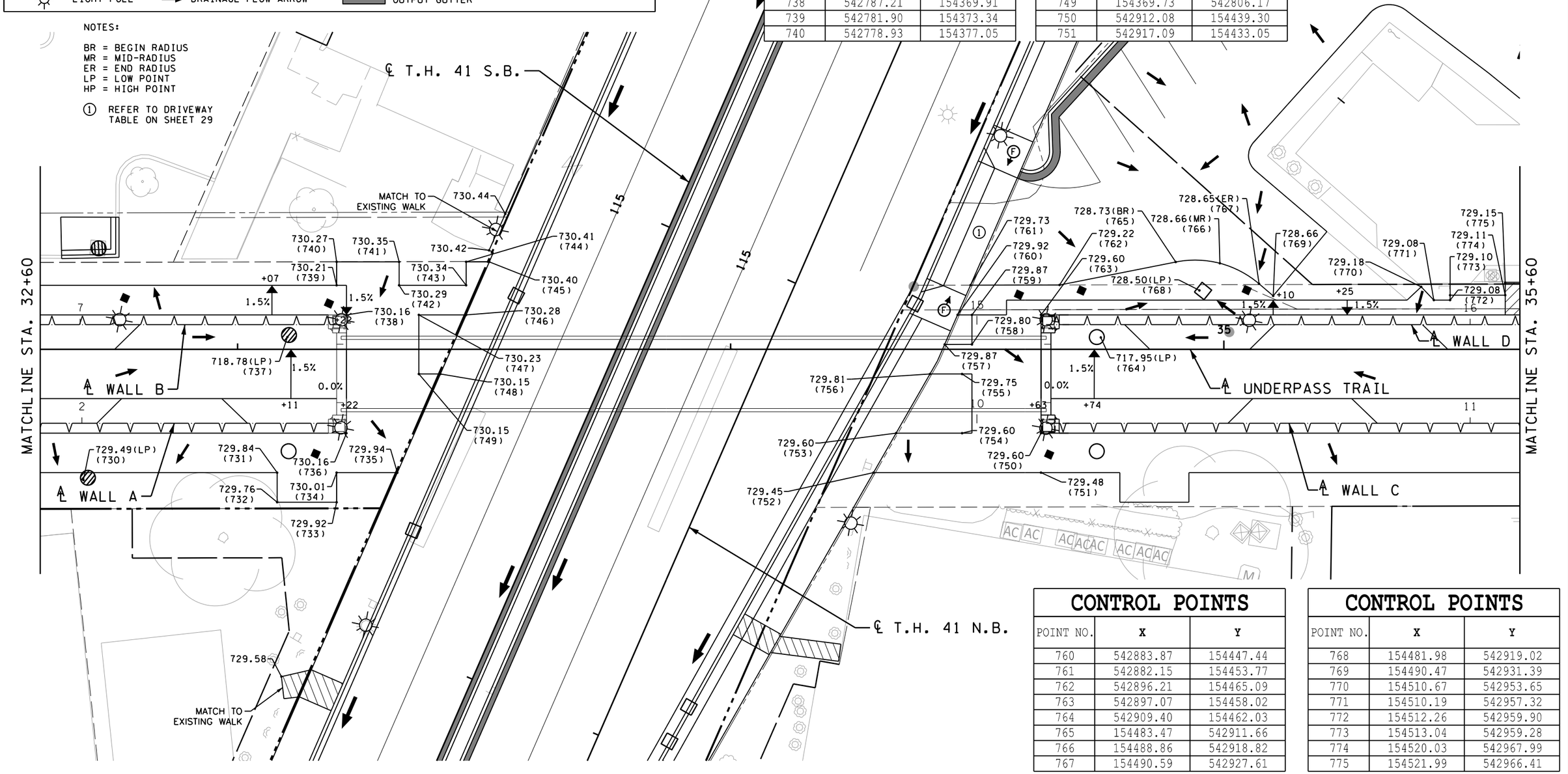
POINT NO.	X	Y
730	542766.56	154310.40
731	542796.27	154336.15
732	542800.02	154331.47
733	542809.43	154339.02
734	542805.67	154343.70
735	542815.28	154351.40
736	542802.23	154351.19
737	542780.69	154358.91
738	542787.21	154369.91
739	542781.90	154373.34
740	542778.93	154377.05

CONTROL POINTS

POINT NO.	X	Y
741	542788.81	154384.97
742	542791.78	154381.27
743	542802.39	154389.77
744	542799.42	154393.48
745	542803.07	154396.41
746	542806.14	154385.09
747	542798.66	154379.09
748	542809.57	154372.46
749	154369.73	542806.17
750	542912.08	154439.30
751	542917.09	154433.05

CONTROL POINTS

POINT NO.	X	Y
752	542890.60	154411.81
753	542889.16	154420.92
754	542899.60	154429.29
755	542892.09	154438.65
756	542887.02	154434.57
757	542885.59	154441.12
758	542889.90	154444.58
759	542886.14	154449.26



CONTROL POINTS

POINT NO.	X	Y
760	542883.87	154447.44
761	542882.15	154453.77
762	542896.21	154465.09
763	542897.07	154458.02
764	542909.40	154462.03
765	154483.47	542911.66
766	154488.86	542918.82
767	154490.59	542927.61

CONTROL POINTS

POINT NO.	X	Y
768	154481.98	542919.02
769	154490.47	542931.39
770	154510.67	542953.65
771	154510.19	542957.32
772	154512.26	542959.90
773	154513.04	542959.28
774	154520.03	542967.99
775	154521.99	542966.41

SCALE 0 10 20 FEET

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SIDEWALK DETAIL PLAN

SHEET 153 OF 359

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CONTROL POINTS

POINT NO.	X	Y
799	542971.32	154530.33
800	542973.47	154527.65
801	543077.62	154600.26
802	543091.67	154592.31
803	543090.11	154584.64
804	543089.80	154581.84
805	543095.31	154576.00
806	543098.12	154575.69
807	543099.13	154566.01
808	543102.72	154568.89
809	543112.80	154556.28
810	543114.20	154556.13
811	543118.89	154559.87
812	543119.04	154561.28
813	543117.79	154562.84
814	543103.36	154580.89
815	543096.84	154592.36
816	543095.66	154595.50
817	543091.96	154605.36
818	543086.66	154619.46

CONTROL POINTS

POINT NO.	X	Y
819	543077.91	154625.92
820	543071.09	154625.32
821	543070.54	154623.72
822	543079.77	154612.22
823	543055.22	154592.53

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
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① REFER TO DRIVEWAY TABLE ON SHEET 29

② MATCH EXISTING FLOW LINE

℄ C.S.A.H. 61 E.B.

℄ WALL D

℄ UNDERPASS TRAIL

℄ WALL C

MATCHLINE STA. 35+60

N WALNUT ST

TRASH ENCLOSURE N-2 (SEE PUBLIC UTILITY DETAILS ON SHEET 200)

LIFT STATION TOP OF SLAB (728.70)

MATCH WALK TO BOTTOM STEP

728.88(ER) (832) · 728.72 (833) · 728.60(ER) (834) · 728.69 (827) · 4" · 728.83 0" (826) · 728.65 (831) · 729.00 (830) · 728.94(HP) (825) · 0" · 729.09 (829) · 4" · 728.32 (824) · 728.05 (823) · 728.42(ER) (821) · 728.42(ER/BR) (820) · 728.29(ER/BR) (819) · 728.59(MR) (835) · 728.42 · 6" · 0" · 729.18 (799) · 729.14 (800) · AC AC · 727.83(LP) (822) · R 10 · 728.07(BR) (818) · 728.35 · 728.90 (828) · 728.27(BR) (836) · 0" · 6" · 727.82 (817) · 6" · 728.10 (801) · 37 · 728.18 (837) · 728.38 (838) · 0" · 0" · 727.99 (802) · 728.04 (839) · 727.99(ER) (803) · 0" · 0" · 6" · 728.41 (849) · 727.95(BR) (804) · R 42 · 727.64 (816) · 727.89(ER) (840) · R 20 · 728.70 (848) · 727.82(BR) (805) · 727.87(ER) (806) · 727.58(ER) (815) · 727.78(BR) (841) · 727.37(BR) (814) · 727.64 (807) · 727.50 (808) · 727.58(ER) (842) · 728.55 (847) · 727.15(LP) (813) · 727.15(ER) (812) · 727.23(BR) (809) · R 1 · R 1 · R 20 · 727.80 (846) · 727.19(ER) (810) · 727.34 (843) · 727.16(BR) (811) · 727.51 (844) · 727.55(BR) (845) · 36 · 17 · 12

CONTROL POINTS

POINT NO.	X	Y
824	543030.68	154572.85
825	543020.97	154579.93
826	543013.04	154585.71
827	543005.43	154591.26
828	543020.62	154569.87
829	543014.89	154574.93
830	543008.82	154582.23
831	543002.37	154588.74
832	543012.96	154617.24
833	543043.40	154631.74
834	543064.48	154643.00
835	543089.43	154644.98
836	543107.20	154627.35

CONTROL POINTS

POINT NO.	X	Y
837	543110.02	154619.84
838	543115.25	154624.03
839	543113.72	154609.99
840	543117.43	154600.09
841	543120.54	154594.63
842	543128.50	154584.67
843	543147.82	154577.00
844	543157.04	154581.25
845	543158.52	154582.58
846	543145.84	154584.50
847	543151.36	154602.77
848	543138.63	154611.82
849	543128.68	154621.99

SCALE 0 10 20 FEET

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Benjamin A Ulrich

BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

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CHECKED DMK

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK DETAIL PLAN

SHEET 154 OF 359

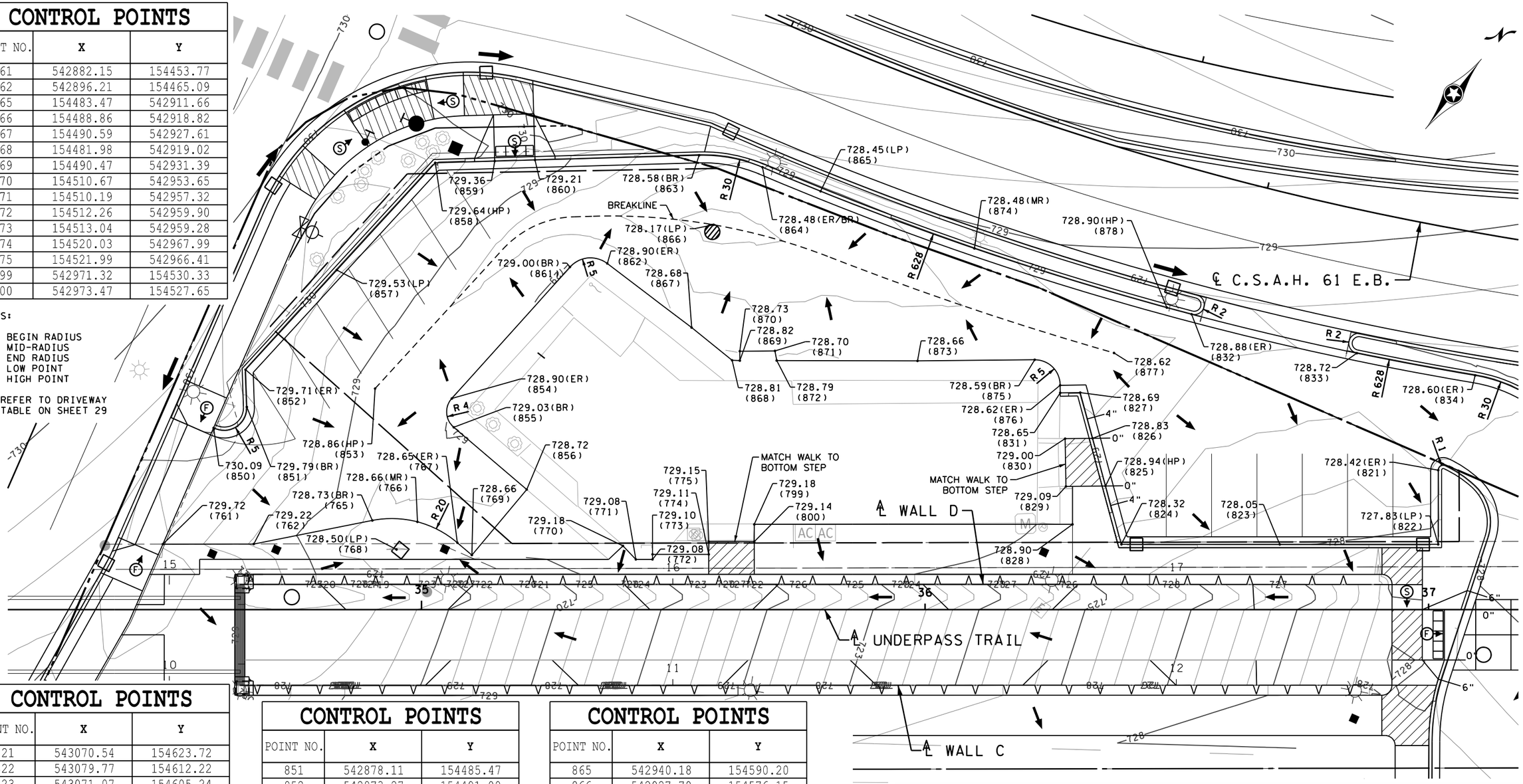
CONTROL POINTS

POINT NO.	X	Y
761	542882.15	154453.77
762	542896.21	154465.09
765	154483.47	542911.66
766	154488.86	542918.82
767	154490.59	542927.61
768	154481.98	542919.02
769	154490.47	542931.39
770	154510.67	542953.65
771	154510.19	542957.32
772	154512.26	542959.90
773	154513.04	542959.28
774	154520.03	542967.99
775	154521.99	542966.41
799	542971.32	154530.33
800	542973.47	154527.65

NOTES:

BR = BEGIN RADIUS
MR = MID-RADIUS
ER = END RADIUS
LP = LOW POINT
HP = HIGH POINT

① REFER TO DRIVEWAY TABLE ON SHEET 29



CONTROL POINTS

POINT NO.	X	Y
821	543070.54	154623.72
822	543079.77	154612.22
823	543071.07	154605.24
824	543030.68	154572.85
825	543020.97	154579.93
826	543013.04	154585.71
827	543005.43	154591.26
828	543020.62	154569.87
829	543014.89	154574.93
830	543008.82	154582.23
831	543002.37	154588.74
832	543012.96	154617.24
833	543043.40	154631.74
834	543064.48	154643.00
850	542875.56	154478.10

CONTROL POINTS

POINT NO.	X	Y
851	542878.11	154485.47
852	542873.27	154491.09
853	542895.69	154504.26
854	542908.82	154512.25
855	542912.69	154508.03
856	542931.73	154507.45
857	542875.04	154517.89
858	542876.94	154546.73
859	542885.95	154554.39
860	542892.05	154559.57
861	542910.76	154547.31
862	542916.11	154552.50
863	542916.89	154580.68
864	542928.20	154586.70

CONTROL POINTS

POINT NO.	X	Y
865	542940.18	154590.20
866	542927.79	154576.15
867	542937.16	154553.04
868	542947.49	154553.00
869	542948.72	154553.92
870	542947.56	154555.38
871	542952.96	154559.79
872	542954.42	154558.51
873	542976.29	154575.95
874	542971.13	154600.45
875	542994.30	154590.69
876	543001.41	154589.90
877	543005.74	154601.60
878	543008.30	154615.20

LEGEND

- XXX — CONTROL POINTS AT GUTTER FLOW LINE OR TOP OF PAVEMENT SURFACE
- TRUNCATED DOMES (SEE STANDARD PLATE 7038)
- CONSTRUCT CONCRETE CURB & GUTTER
- CATCH BASIN
- MANHOLE
- HYDRANT
- GATE VALVE
- SIGNAL POLE
- PEDESTAL
- HANDHOLE
- LIGHT SERVICE CABINENT
- LIGHT POLE
- DRAINAGE FLOW ARROW
- LANDING AREA - 4' X 4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS
- Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- Ⓕ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%
- PEDESTRIAN PUSH BUTTON STATION
- OUTPUT GUTTER

SCALE 0 10 20 FEET

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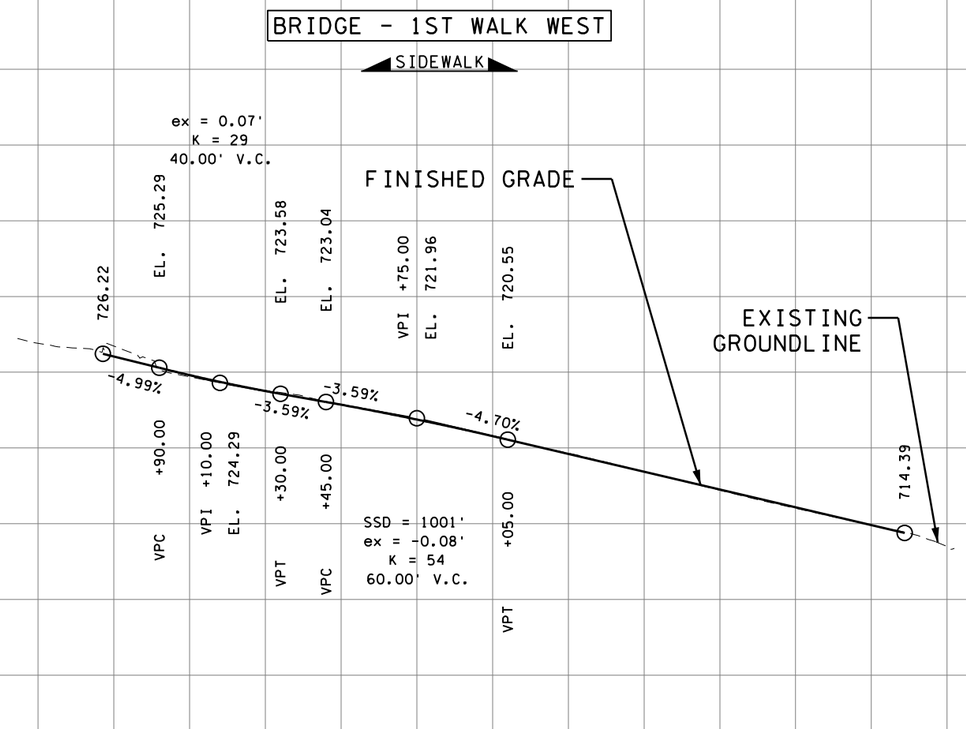
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BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

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SIDEWALK DETAIL PLAN

SHEET 155 OF 359



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Benjamin A. Ulrich

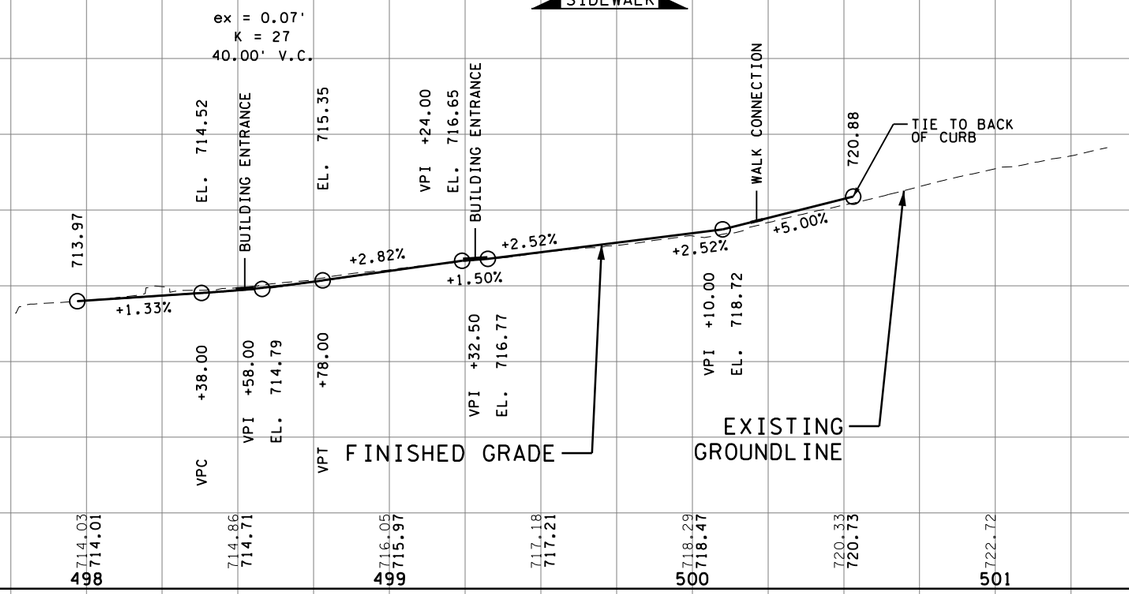
BENJAMIN A. ULRICH
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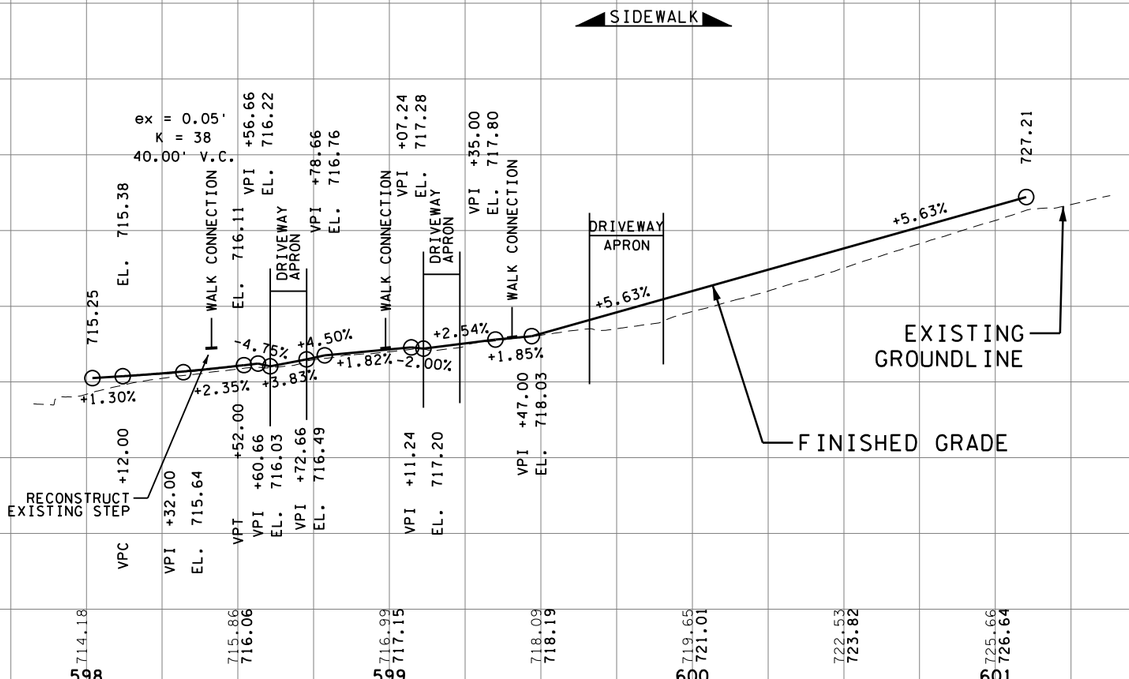
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SIDEWALK CONSTRUCTION PROFILE

SHEET 156 OF 359

1ST - 2ND WALK EAST



1ST - 2ND WALK WEST



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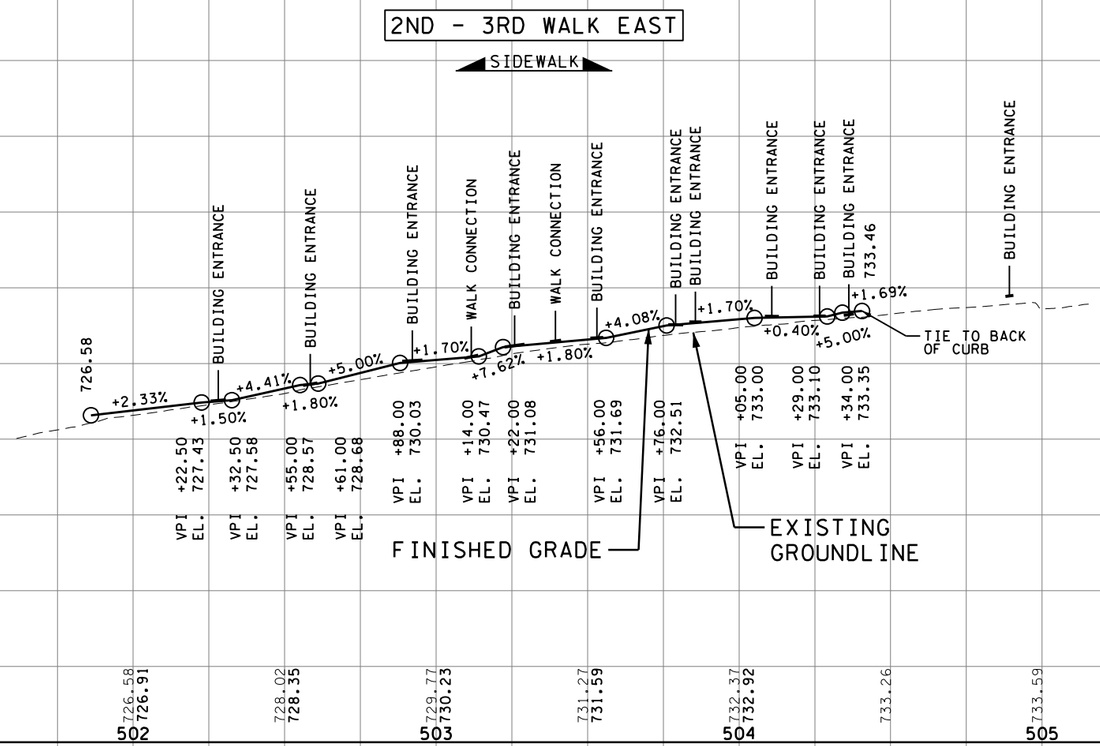
BENJAMIN A. ULRICH
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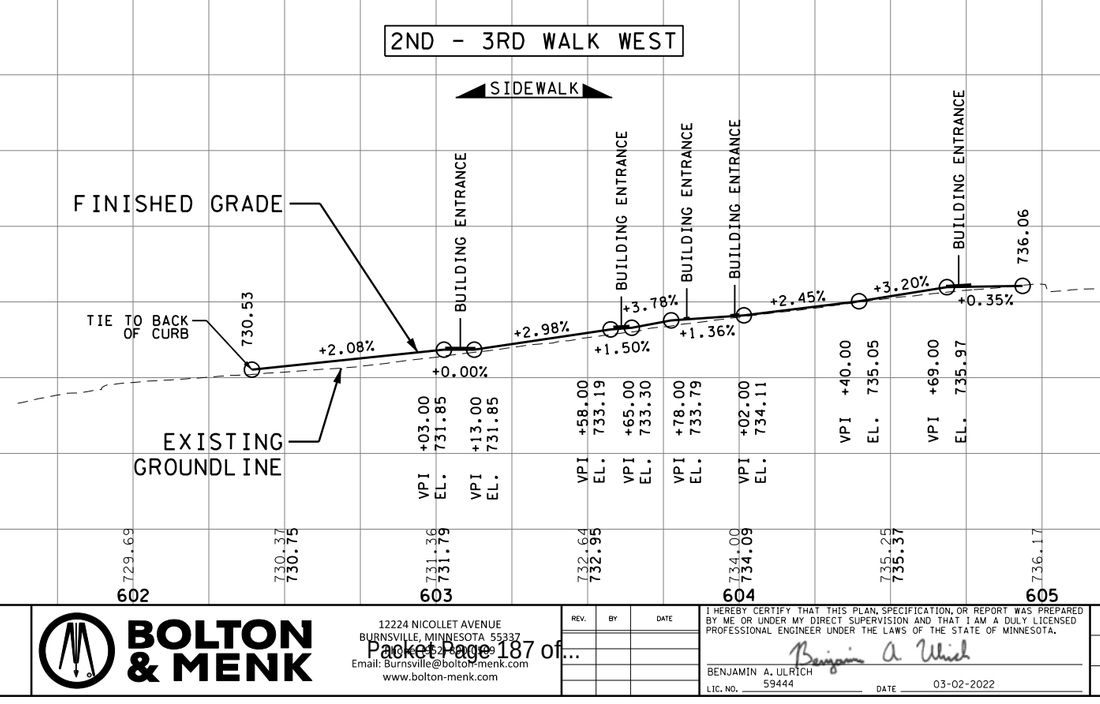
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SIDEWALK CONSTRUCTION PROFILE

SHEET 157 OF 359

2ND - 3RD WALK EAST



2ND - 3RD WALK WEST



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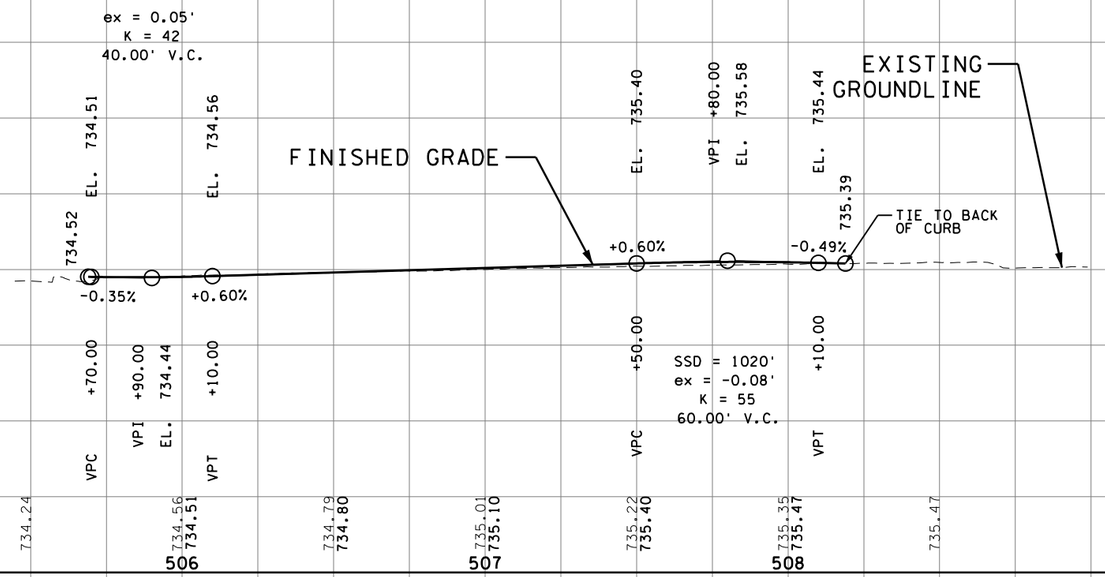
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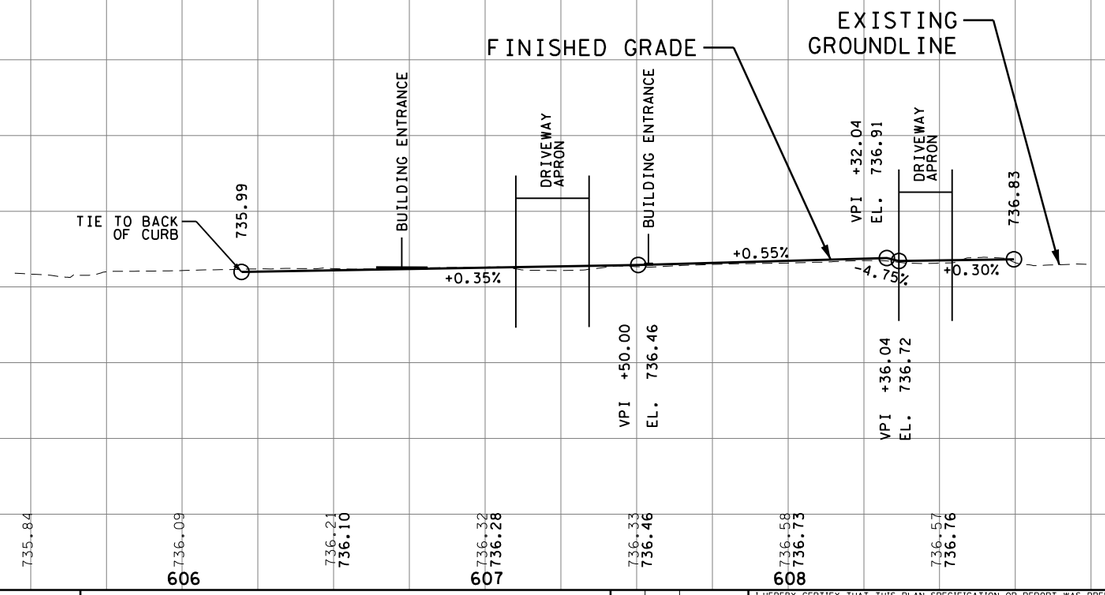
SIDEWALK CONSTRUCTION PROFILE

SHEET 158 OF 359

3RD - 4TH WALK EAST



3RD - 4TH WALK WEST



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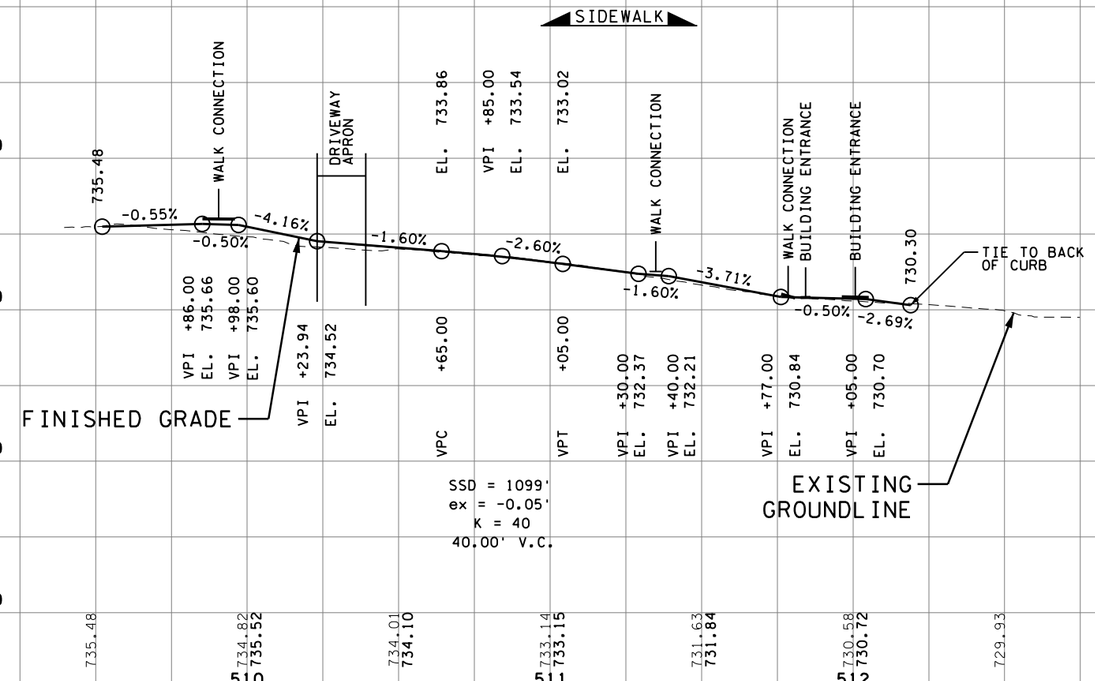
BENJAMIN A. ULRICH
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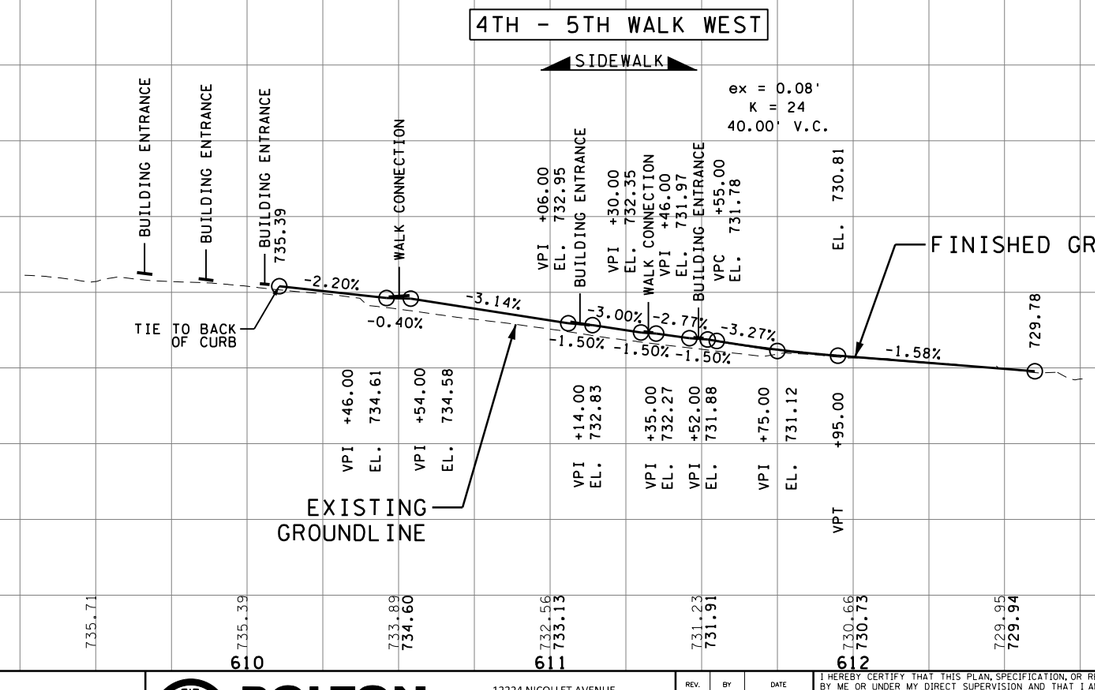
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SIDEWALK CONSTRUCTION PROFILE

SHEET 159 OF 359

4TH - 5TH WALK EAST



4TH - 5TH WALK WEST



SCALE 0 25 50 FEET

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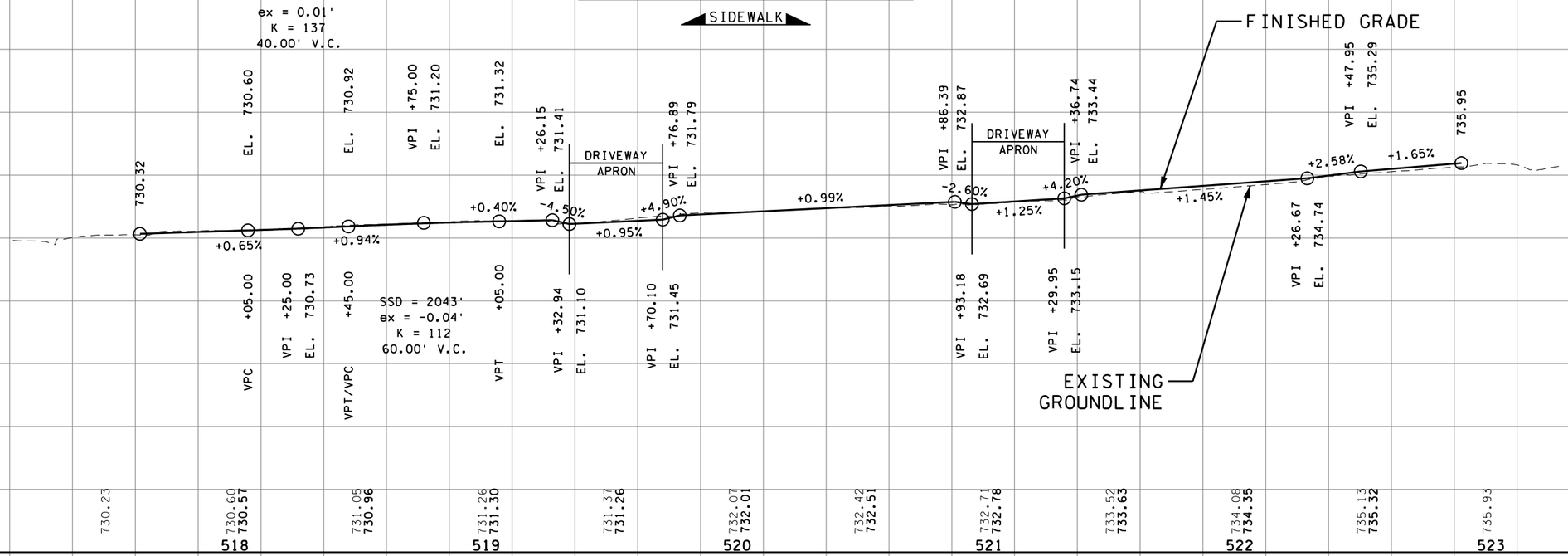
BENJAMIN A. ULRICH
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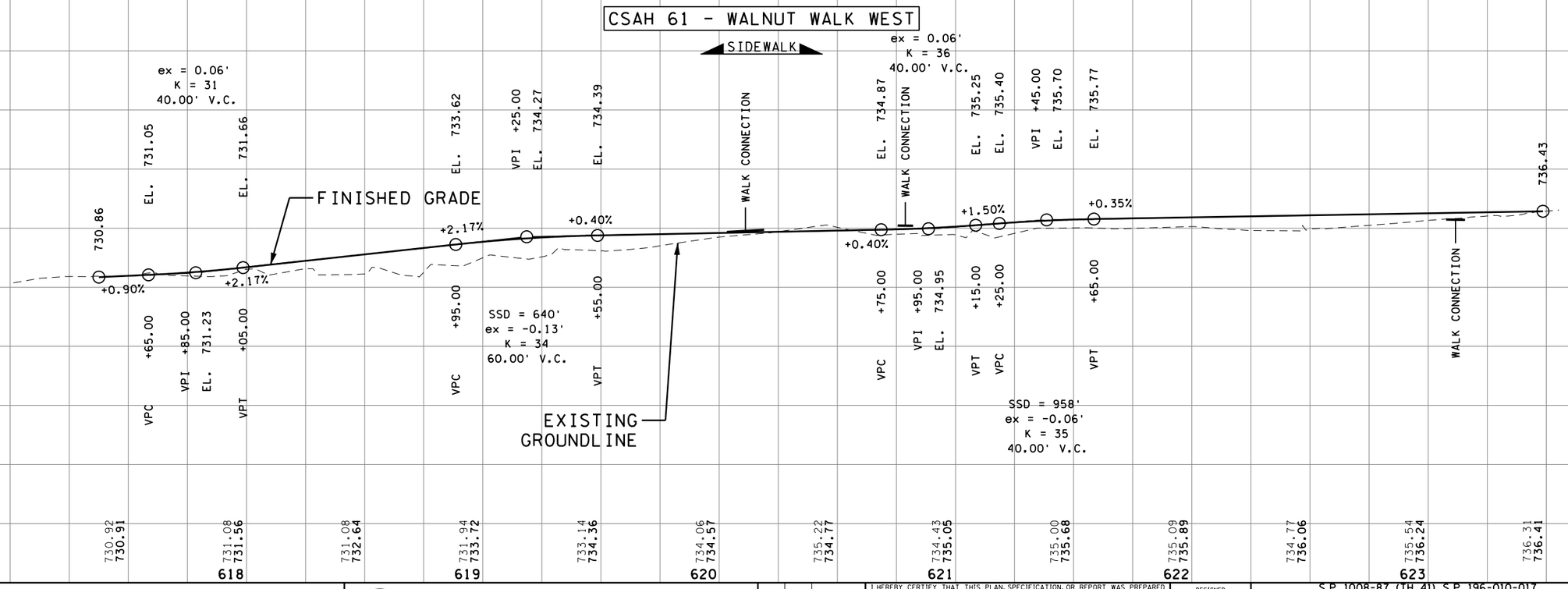
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SIDEWALK CONSTRUCTION PROFILE

SHEET 160 OF 359

CSAH 61 - WALNUT WALK EAST



CSAH 61 - WALNUT WALK WEST



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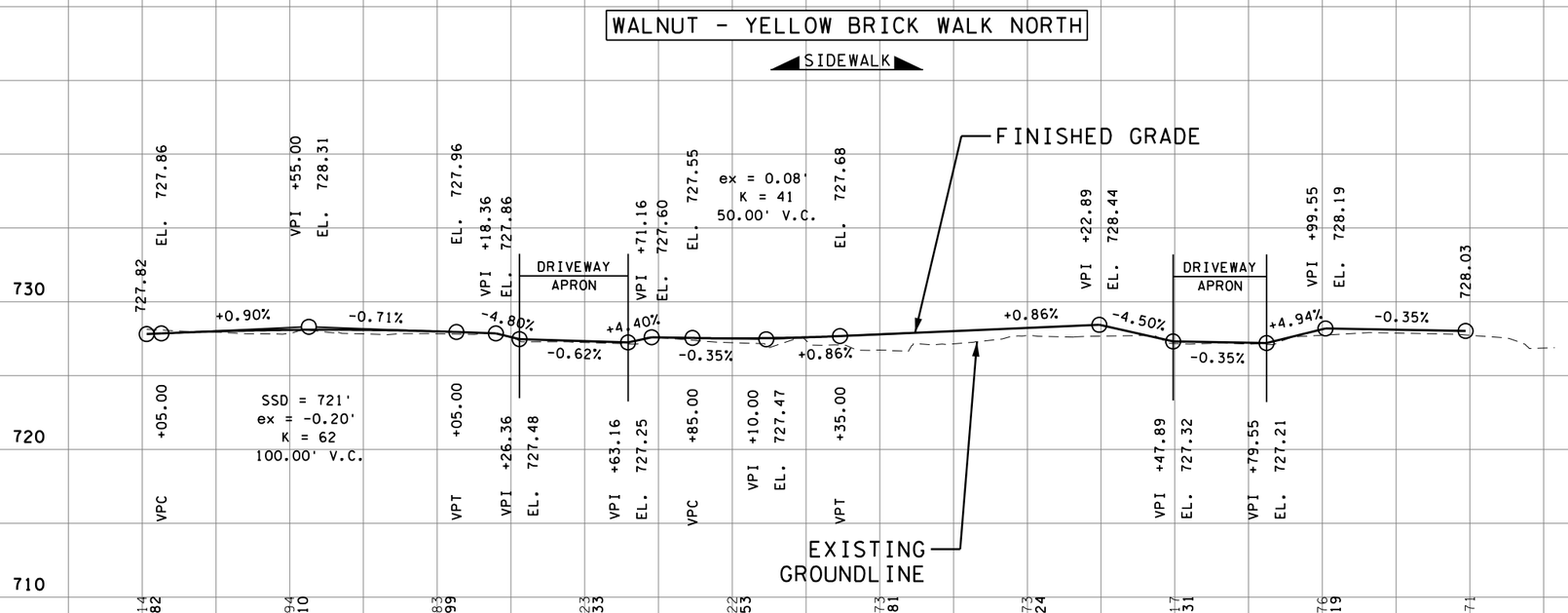
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SIDEWALK CONSTRUCTION PROFILE

SHEET 161 OF 359

WALNUT - YELLOW BRICK WALK NORTH

SIDEWALK



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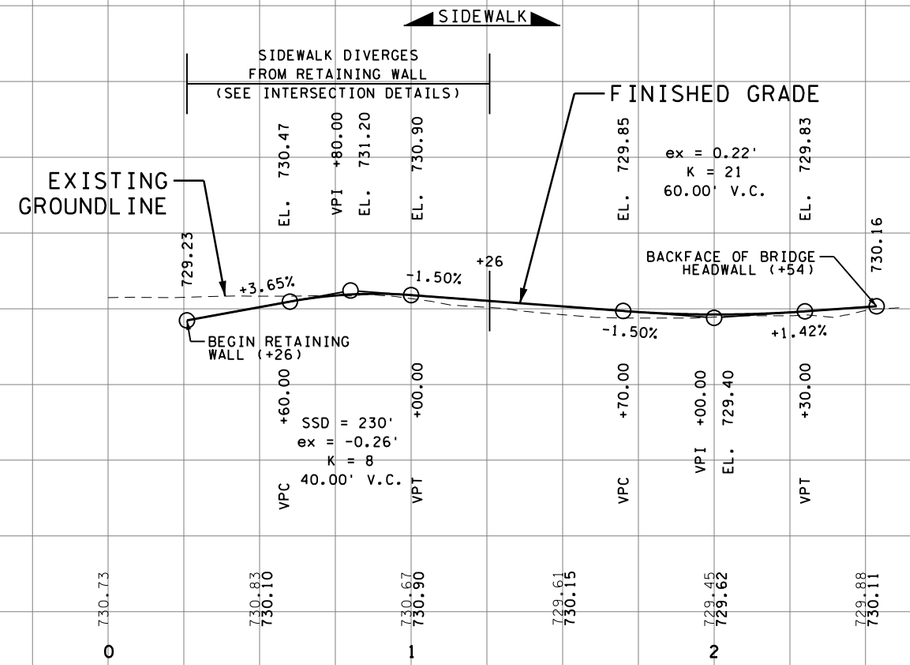
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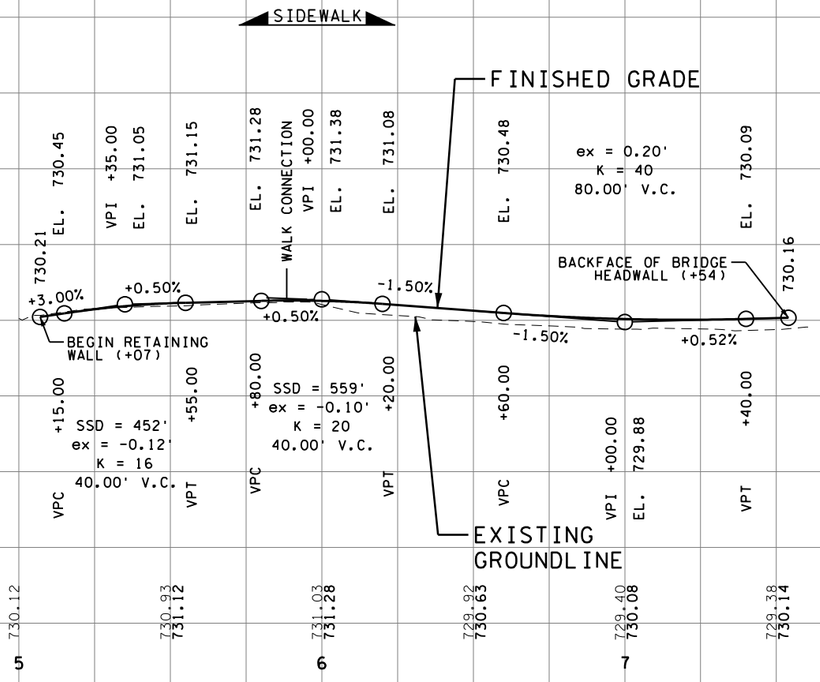
SIDEWALK CONSTRUCTION PROFILE

SHEET 162 OF 359

TOP OF SIDEWALK & RETAINING WALL A



TOP OF SIDEWALK & RETAINING WALL B



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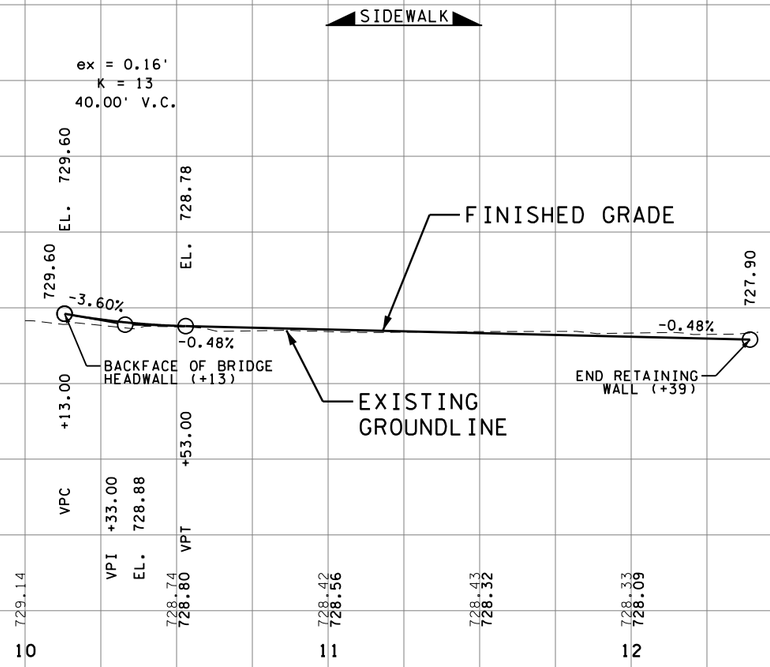
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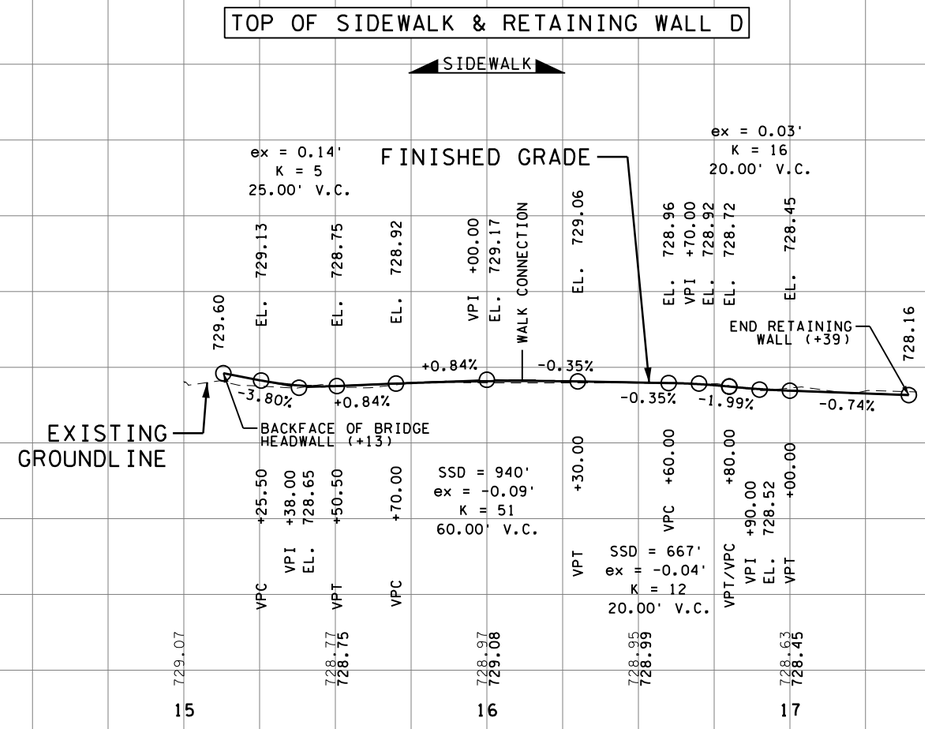
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK CONSTRUCTION PROFILE

SHEET 163 OF 359

TOP OF SIDEWALK & RETAINING WALL C



TOP OF SIDEWALK & RETAINING WALL D



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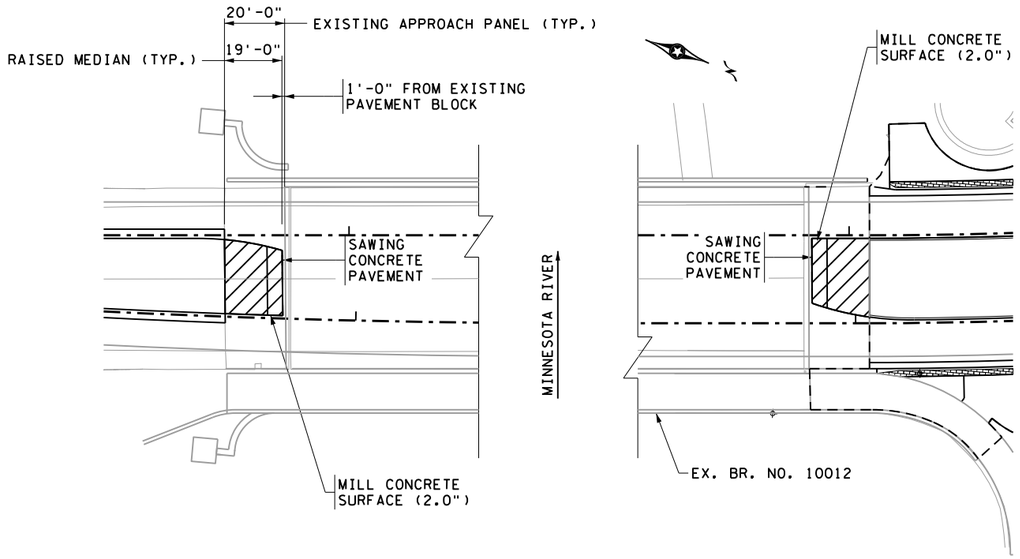
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BENJAMIN A. ULRICH
LIC. NO. 59444 DATE 03-02-2022

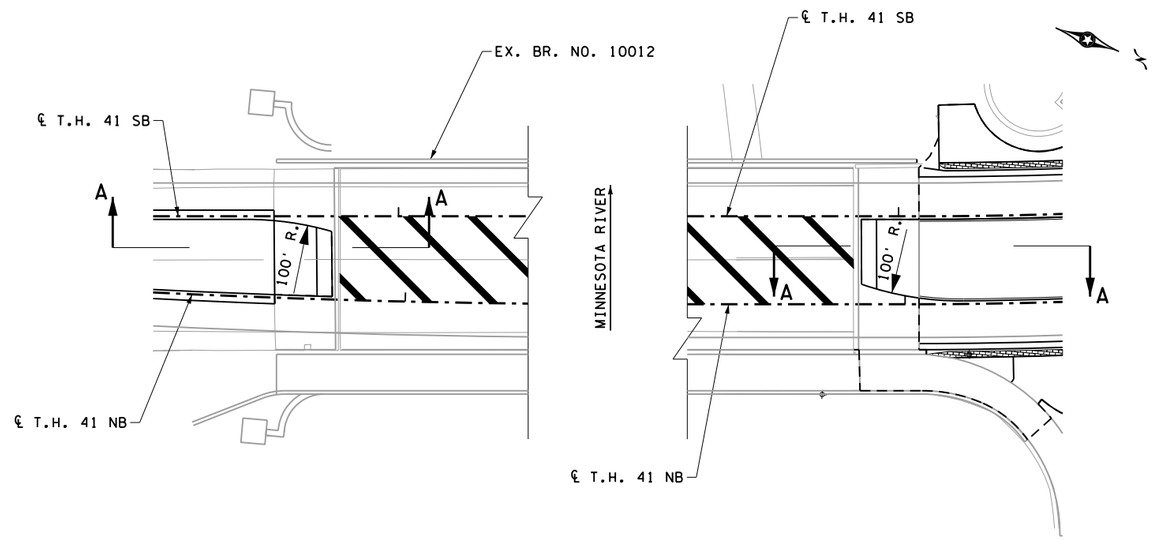
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S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIDEWALK CONSTRUCTION PROFILE

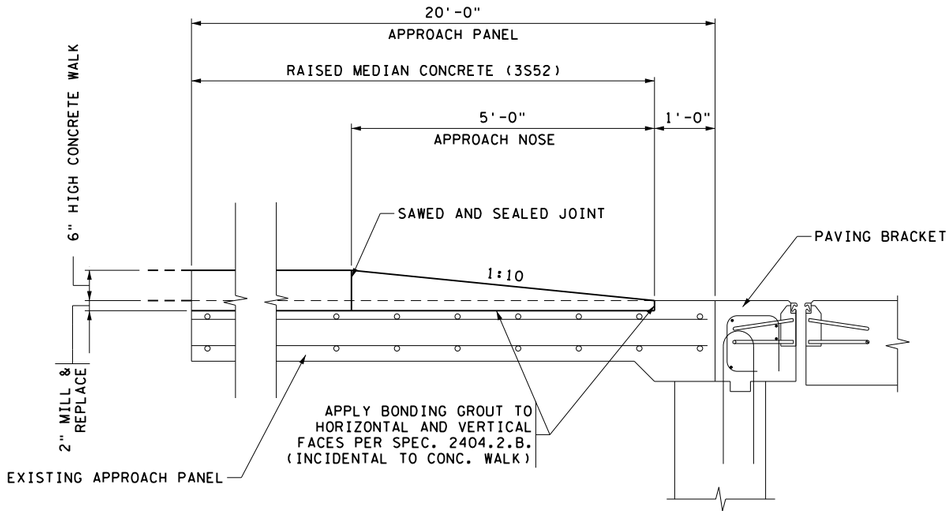
SHEET 164 OF 359



APPROACH PANEL REMOVAL PLAN
(RAISED MEDIAN)



APPROACH PANEL PROPOSED PLAN
(RAISED MEDIAN)



SECTION A-A
SOUTH APPROACH PANEL SHOWN
NORTH APPROACH PANEL SIMILAR

NOTES:

REMOVAL AND RECONSTRUCTION SHALL CONFORM TO SPEC. 2433.
NEW CONSTRUCTION SHALL CONFORM TO SPEC. 2406.

CONCRETE REMOVALS SHALL BE INITIATED WITH A 3/4" DEEP SAWCUT UNLESS NOTED OTHERWISE. DO NOT CROSS-CUT AT CORNERS OF REMOVAL.

SAWING OF EXISTING APPROACH PANEL SHALL BE LIMITED TO 2" DEPTH. SAWCUTS FOR APPROACH PANEL AND C2H JOINTS SHALL BE PAID FOR AS 'SAWING CONCRETE PAVEMENT'.

DRAWINGS ARE NOT TO SCALE.

DIMENSIONS BASED ON AS-BUILT PLAN SET. VERIFY ALL DIMENSIONS IN THE FIELD AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

ALL REMOVED OBJECTS OR MATERIALS NOT SPECIFICALLY BEING SALVAGED AND INCORPORATED INTO NEW WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OUTSIDE THE PROJECT LIMITS (INCIDENTAL). NO DISPOSAL SITE IS PROVIDED.

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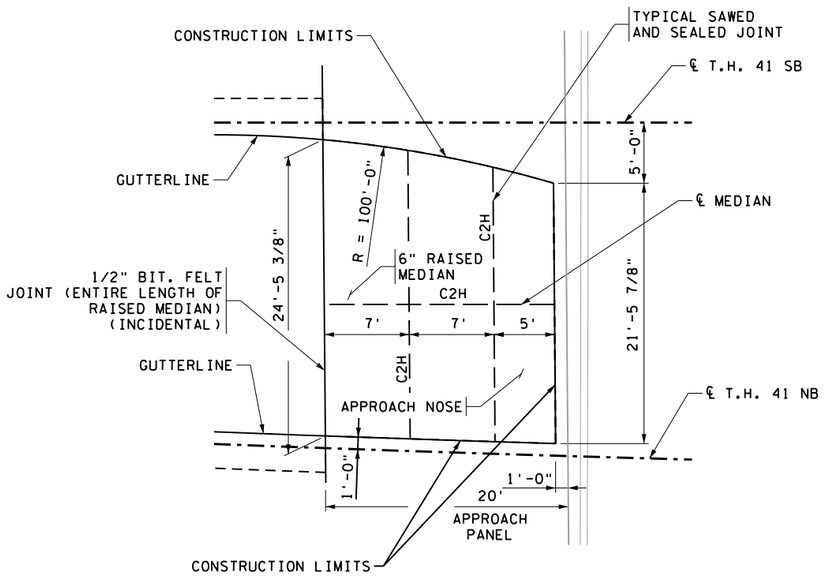
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RYAN R. EVANS
LIC. NO. 53920 DATE 03-02-2022

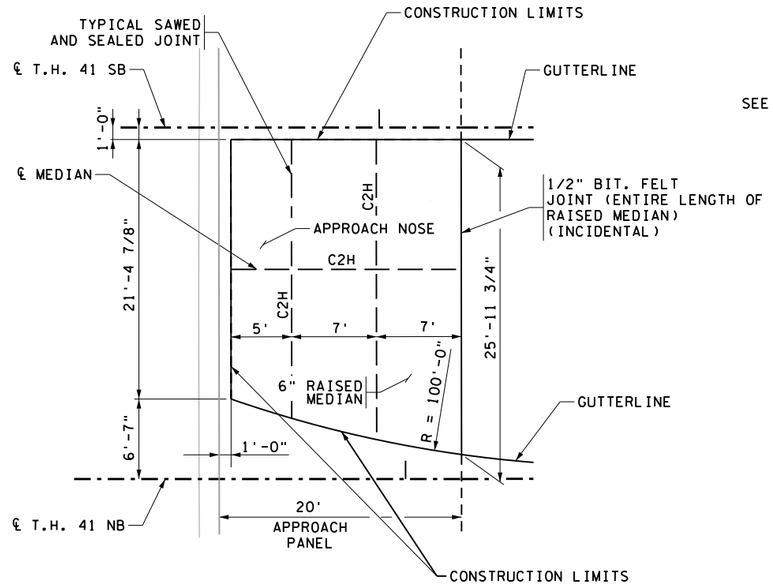
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
APPROACH PANEL PLAN

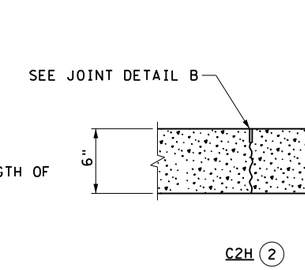
SHEET 165 OF 359

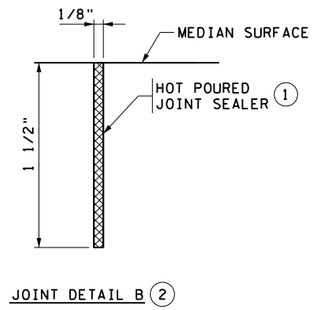


SOUTH APPROACH PANEL MEDIAN PLAN



NORTH APPROACH PANEL MEDIAN PLAN





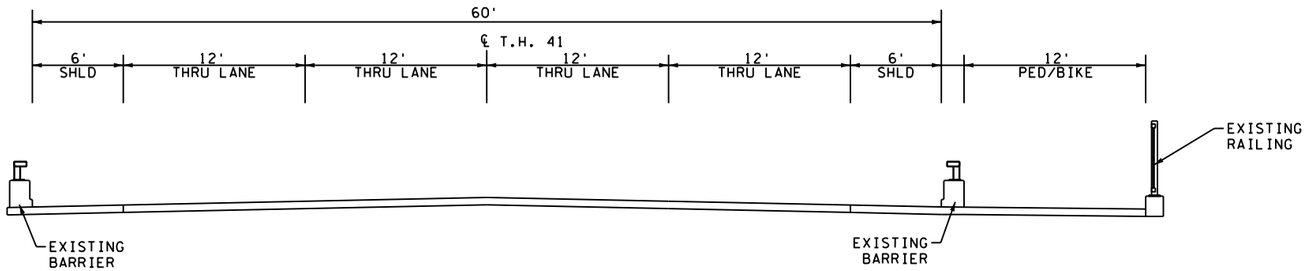
NOTES:

JOINT WIDTH TOLERANCE IS + 1/16" TO - 1/32".

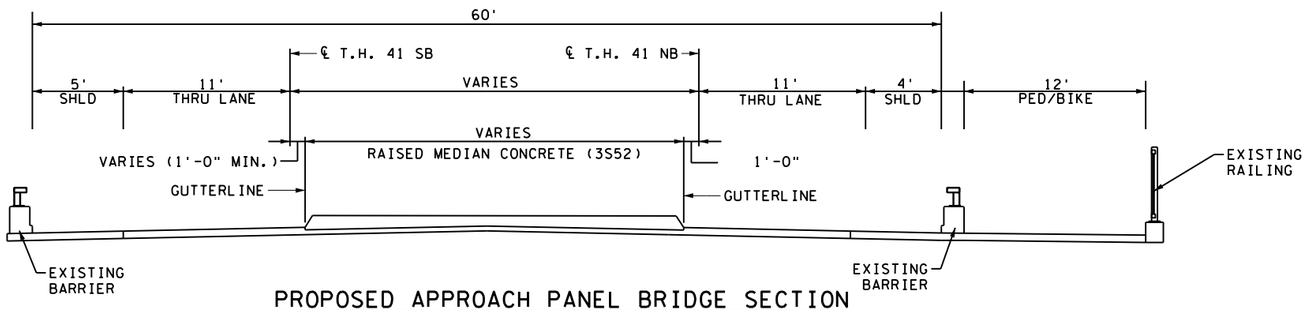
(1) SAW AND SEAL PER SPEC. 3725. ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

(2) WHEN SEALING, THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.

CONTRACTION JOINT DETAILS



EXISTING APPROACH PANEL BRIDGE SECTION



PROPOSED APPROACH PANEL BRIDGE SECTION

SOUTH APPROACH PANEL SHOWN
NORTH APPROACH PANEL SIMILAR

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DRAWN	JMR
CHECKED	RRE

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APPROACH PANEL PLAN

SHEET 166 OF 359

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SUMMARY OF QUANTITIES FOR SHEET PILE RETAINING WALLS — L

	ITEM NO.	ITEM	UNIT	RETAINING WALL				TOTAL
				A	B	C	D	
(1)	2411	STRUCTURAL CONCRETE (3B52)	CU YD	40	43	39	40	162
	2411	REINFORCEMENT BARS (EPOXY COATED)	POUND	2209	2368	2169	2202	8948
	2411	ARCHITECTURAL CONCRETE TEXTURE (BRICK)	SQ FT	129	134	125	130	518
	2452	STEEL SHEET PILING (PERMANENT)	SQ FT	6024	7033	5673	6126	24856
	2545	CONDUIT SYSTEM	LUMP SUM	0.25	0.25	0.25	0.25	1
(2)	2475	ORNAMENTAL METAL RAILING DESIGN T-4 PC	LIN FT	213	233	212	212	870

QUANTITY NOTES:

(1) QUANTITY INCLUDES VOLUME OF CONCRETE FOR PILASTERS AND PILE CAP AND POLYSTYRENE TYPE B.

(2) LENGTH MEASURED AS THE OUT TO OUT LENGTH ALONG THE CENTERLINE OF THE RAILING BETWEEN OUTSIDE ENDS OF EACH SEGMENT ALONG WALL WITH DEDUCTIONS FOR THE LENGTH OF CONCRETE PILASTERS.

ALL MATERIALS AND WORK ASSOCIATED WITH INSTALLATION OF STEEL SHEAR STUDS ON SHEET PILING SHALL BE CONSIDERED INCIDENTAL.

GENERAL NOTES:

SEE SPECIAL PROVISIONS DIVISION SB FOR ADDITIONAL DESIGN, SUBMITTAL, MATERIALS AND CONSTRUCTION REQUIREMENTS NOT LISTED BELOW.

CONSTRUCTION:

CONSTRUCTION SHALL BE IN ACCORDANCE WITH MNDOT SPEC. 2411, EXCEPT AS NOTED.

CONSTRUCTION SHALL BE CONDUCTED IN SUCH A WAY TO PREVENT LEAKAGE OF CONCRETE FORMS FROM STAINING PERMANENT EXPOSED FACES OF STEEL SHEET PILE WALL. IN THE EVENT OF LEAKAGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE PERMANENT EXPOSED FACES TO A DEGREE THAT DOES NOT IMPACT THE FINAL LOOK, TO THE SATISFACTION OF THE ENGINEER.

GEOMETRICS AND GRADES:

SEE ALIGNMENT PLAN & TABULATION SHEETS FOR WALL ALIGNMENT DATA. SEE WALL DETAILS FOR WALL ALIGNMENT REFERENCE LINE.

EXCAVATION AND EARTHWORK:

ALL EXCAVATION AND EMBANKMENT WORK SHALL CONFORM TO MNDOT SPEC. 2451.

UTILITIES:

EXISTING AND PROPOSED UTILITIES ARE SHOWN IN THE GRADING PLANS. THE CONTRACTORS SHALL VERIFY THE LOCATION OF EXISTING FACILITIES AND SHALL EXERCISE CARE IN ADJACENT CONSTRUCTION.

CONCRETE:

ALL CONCRETE SHALL CONFORM TO MNDOT SPEC. 2461, EXCEPT AS NOTED.

REINFORCING STEEL:

USE REINFORCEMENT BARS CONFORMING TO MNDOT SPEC. 3301, GRADE 60.

BARS MARKED WITH THE SUFFIX "E" TO BE EPOXY COATED.

ALL BENT BAR DIMENSIONS ARE GIVEN OUT-TO-OUT.

MAINTAIN CLEAR DISTANCES BETWEEN REINFORCEMENT BARS AND FACE OF CONCRETE OF 2 INCHES ELSEWHERE UNLESS OTHERWISE NOTED.

SHEET PILE RETAINING WALL PLANS

SHEET INDEX

RETAINING WALLS A-D

SHEET NO.	DESCRIPTION
167	RETAINING WALL GENERAL NOTES
168-169	RETAINING WALL DETAILS
170-172	RETAINING WALL REINFORCEMENT DETAILS
173	ORNAMENTAL METAL RAILING (DESIGN T-4 CURB MOUNT)
174	ORNAMENTAL RAILING POST SPACING
175	RETAINING WALL A PLAN AND PROFILE
176	RETAINING WALL B PLAN AND PROFILE
177	RETAINING WALL C PLAN AND PROFILE
178	RETAINING WALL D PLAN AND PROFILE

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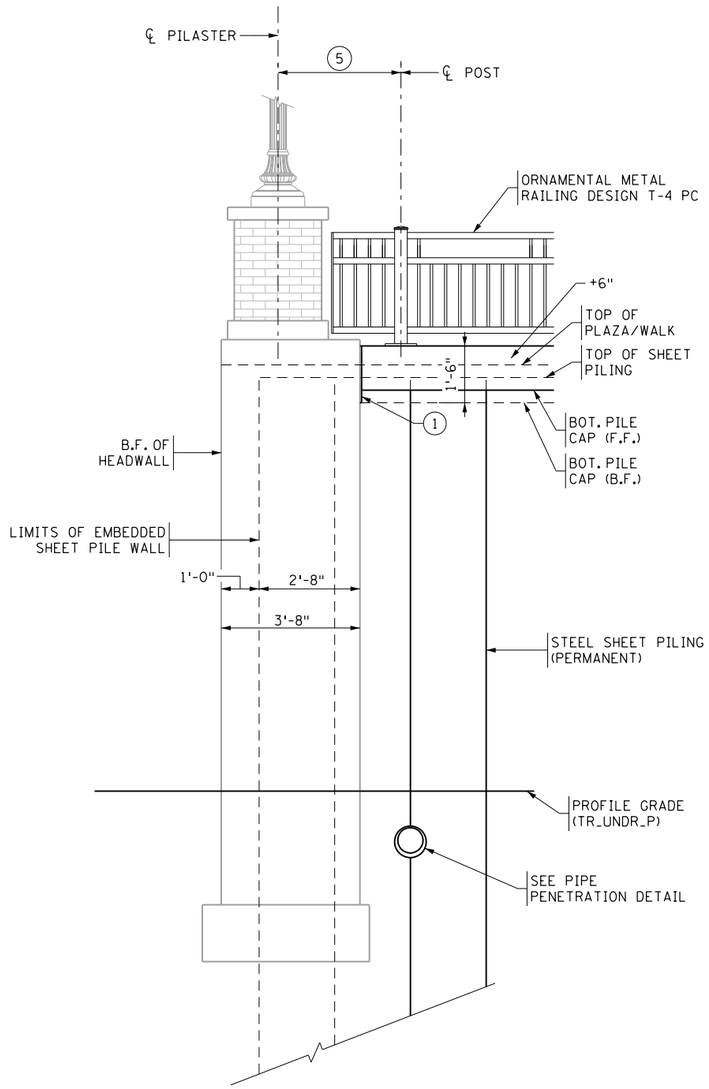
RYAN R. EVANS
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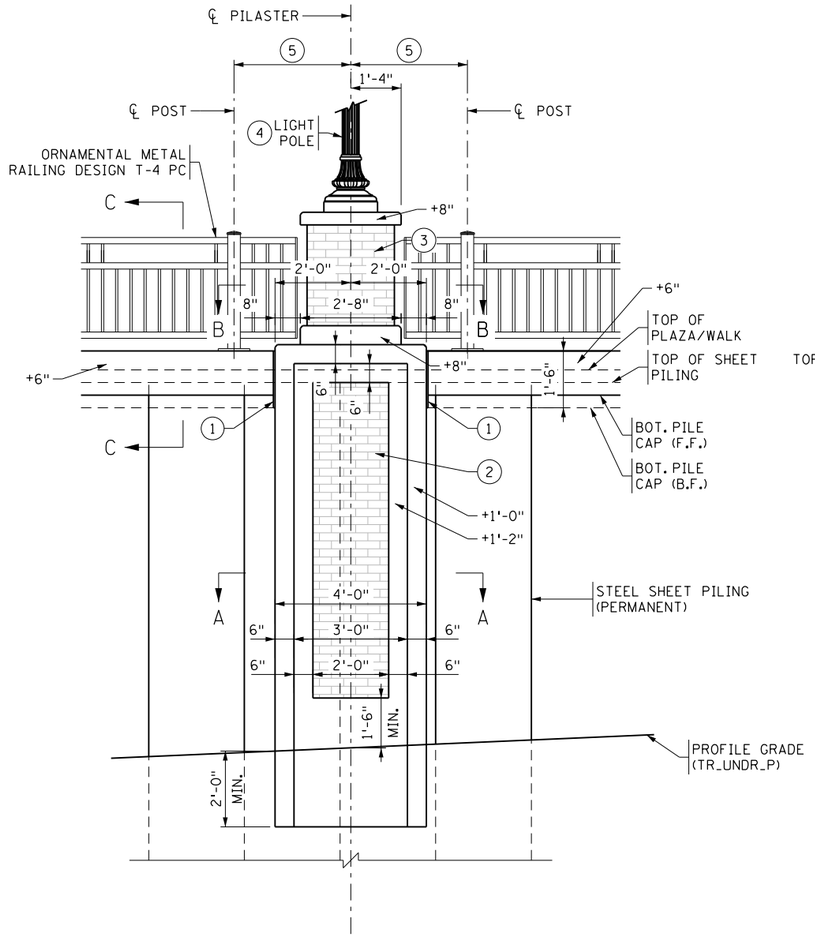
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
RETAINING WALL PLAN

SHEET 167 OF 359

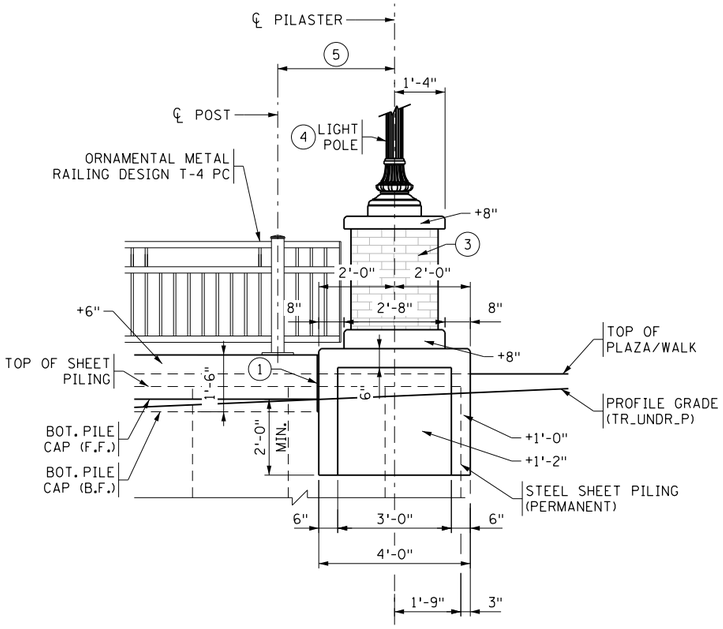
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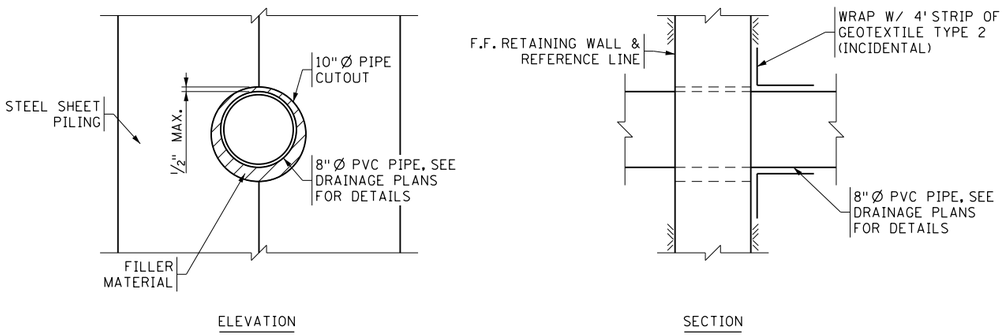
HEADWALL CORNER DETAIL



INTERIOR PILASTER ELEVATION



END PILASTER ELEVATION



PIPE PENETRATION DETAIL

NOTES:

PROVIDE A ¾" CHAMFER ON ALL EXPOSED SURFACES UNLESS NOTED OTHERWISE.

SEE BRIDGE PLANS FOR ADDITIONAL HEADWALL DETAILS.

APPLY SPECIAL SURFACE FINISH TO ALL CONCRETE SURFACES NOT RECEIVING ARCHITECTURAL CONCRETE TEXTURE (BRICK).

SPECIAL SURFACE FINISH COLOR SHALL BE FEDERAL STANDARD 595C, COLOR NO. 33522 (LIGHT BUFF).

1. ½" TYPE B (LOW DENSITY) POLYSTRENE. INCLUDED IN ITEM "STRUCTURAL CONCRETE (3B52)".
2. +1'-0"; ARCHITECTURAL CONCRETE TEXTURE (BRICK).
3. +7⅛"; ARCHITECTURAL CONCRETE TEXTURE (BRICK).
4. LIGHT POLE AND CONDUIT NOT INCLUDED AT ALL PILASTERS. SEE RETAINING WALL PLAN AND PROFILES SHEETS FOR LIGHT LOCATIONS. SEE LIGHTING PLANS.
5. SEE SHEET NO. 174 FOR ORNAMENTAL RAILING POST SPACING.

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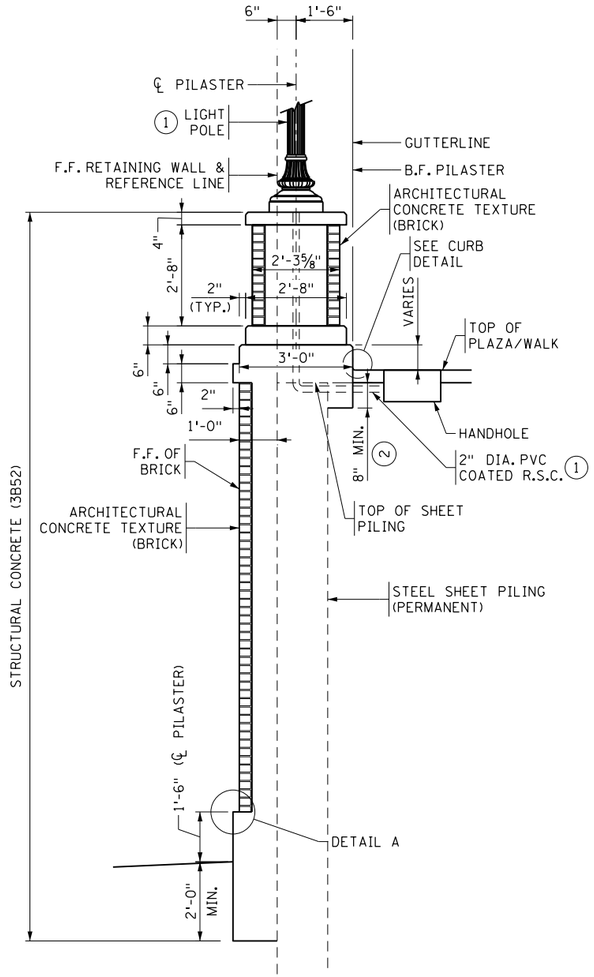
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S.P. 196-010-018, S.P. 196-020-014
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RETAINING WALL PLAN

SHEET 168 OF 359

7.B Adopt Resolution 2022-48, Approve...
Page 169 of...
Packet Page 197 of...



PILASTER SECTION

INTERIOR PILASTER SHOWN, END PILASTER SIMILAR

NOTES:

F.F. DENOTES FRONT FACE.

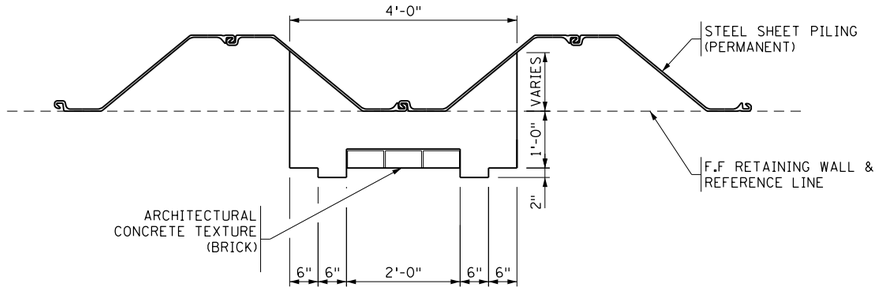
B.F. DENOTES BACK FACE.

PROVIDE A ¾" CHAMFER ON ALL EXPOSED SURFACES UNLESS NOTED OTHERWISE.

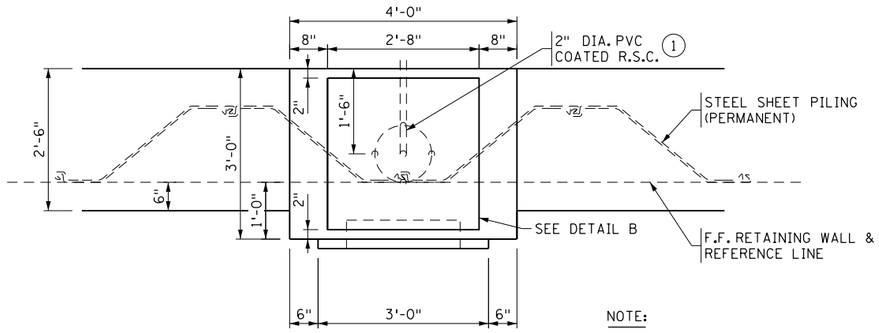
APPLY SPECIAL SURFACE FINISH TO ALL CONCRETE SURFACES NOT RECEIVING ARCHITECTURAL CONCRETE TEXTURE (BRICK).

SPECIAL SURFACE FINISH COLOR SHALL BE FEDERAL STANDARD 595C, COLOR NO. 33522 (LIGHT BUFF).

1. LIGHT POLE AND CONDUIT NOT INCLUDED AT ALL PILASTERS. SEE RETAINING WALL PLAN AND PROFILES SHEETS FOR LIGHT LOCATIONS. SEE LIGHTING PLANS.
2. ACCEPTABLE CONSTRUCTION TOLERANCE FOR TOP OF STEEL PILING SHALL BE +1.0" TO -1.0" FOR THE DESIGN VALUE SHOWN.
3. 1½" PVC COATED R.S.C. (CAMERA) - EXTEND CONDUIT 3" BEYOND FACE OF CONCRETE AND CAP ENDS. PLACE SUCH THAT CONDUIT WILL NOT INTERFERE WITH POST-INSTALLED RAILING ANCHORAGES. SEE RETAINING WALL PLAN AND PROFILE SHEETS FOR LOCATIONS.
4. SEE ORNAMENTAL RAILING DETAILS FOR ANCHORAGE REQUIREMENTS.



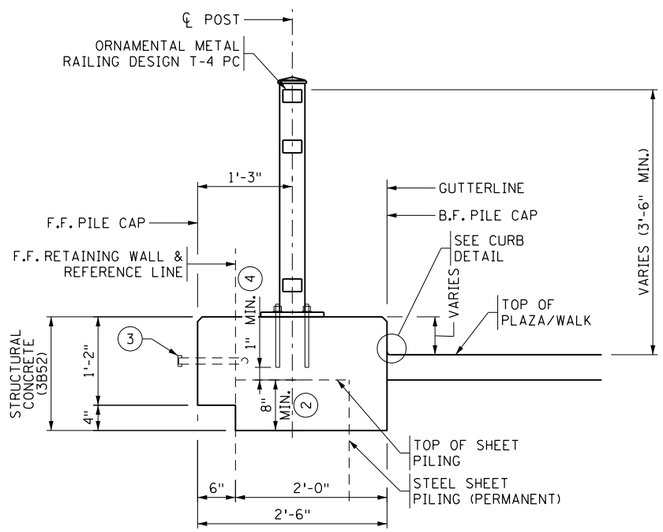
SECTION A-A



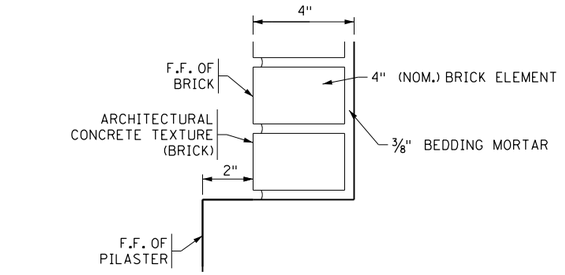
NOTE:

ORNAMENTAL RAILING NOT SHOWN FOR CLARITY.

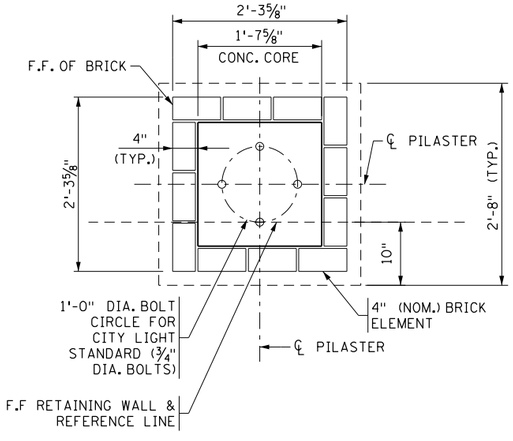
SECTION B-B



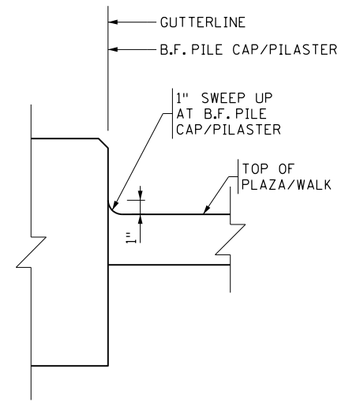
SECTION C-C



DETAIL A



DETAIL B



CURB DETAIL

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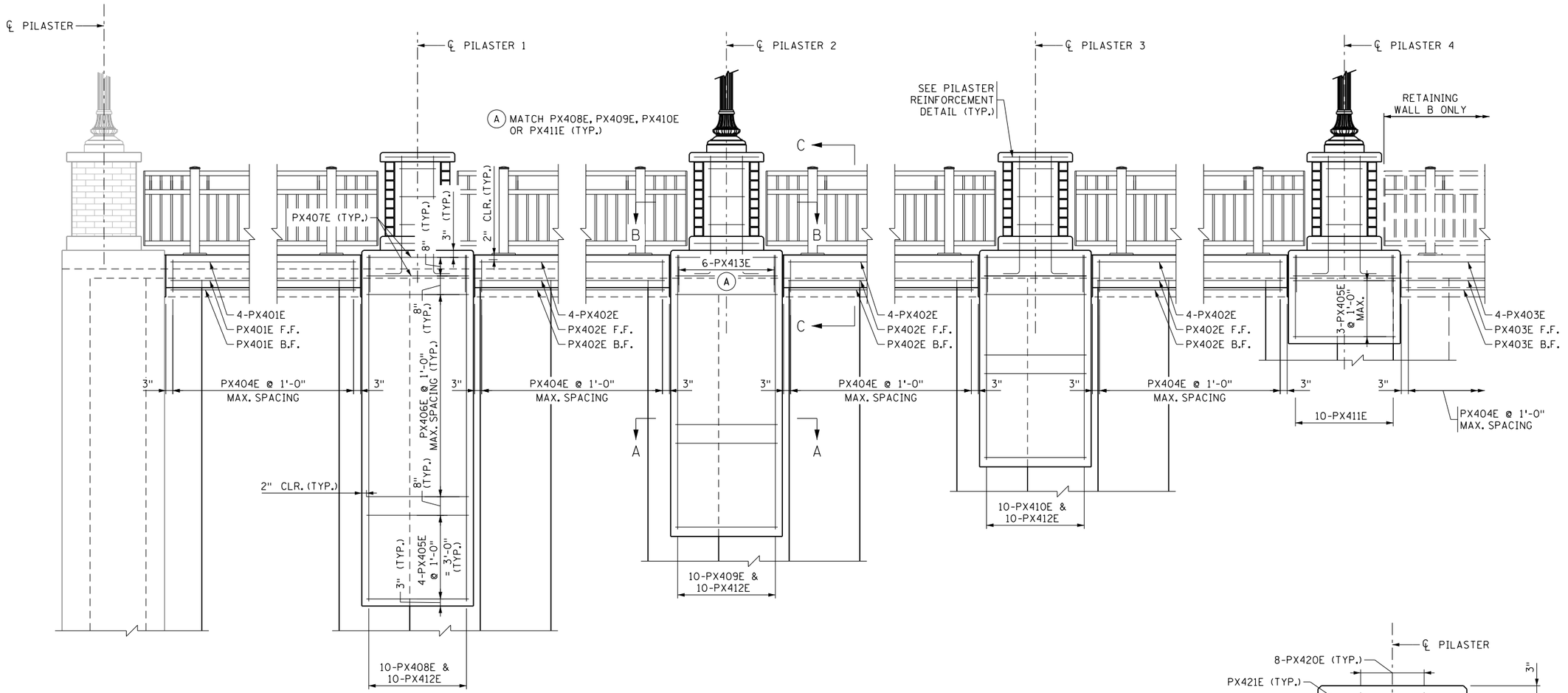
RYAN R. EVANS
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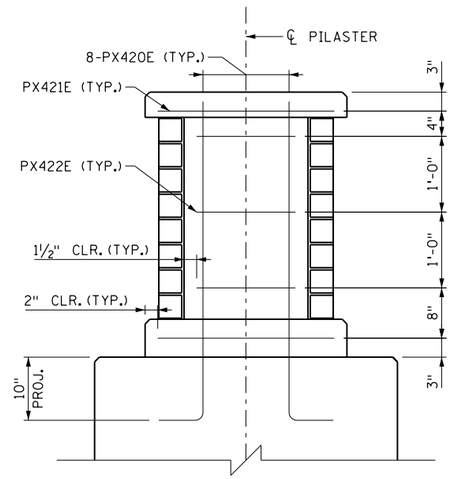
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RETAINING WALL PLAN

SHEET 169 OF 359

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PILASTER AND PILE CAP REINFORCEMENT ELEVATION



PILASTER REINFORCEMENT DETAIL

NOTES:

F.F. DENOTES FRONT FACE.

B.F. DENOTES BACK FACE.

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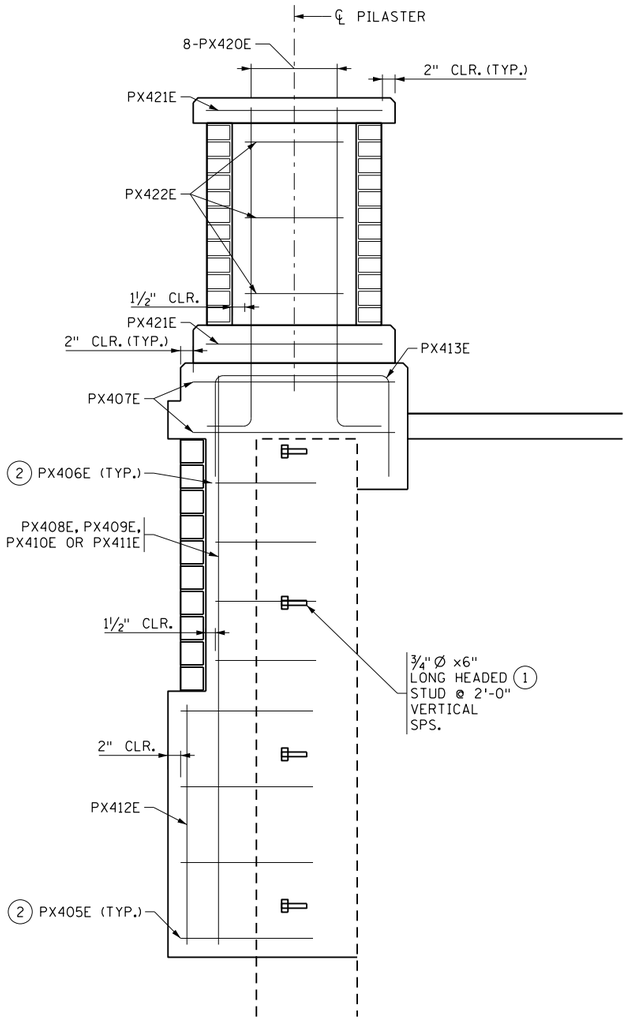
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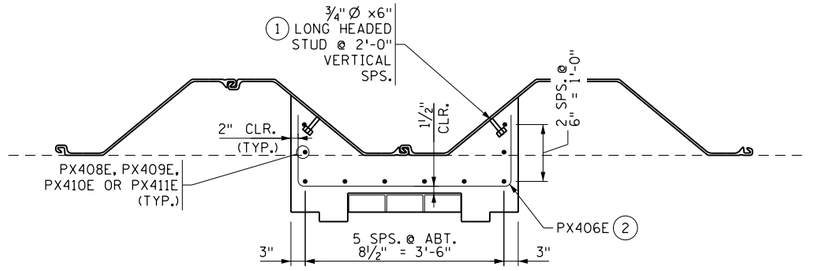
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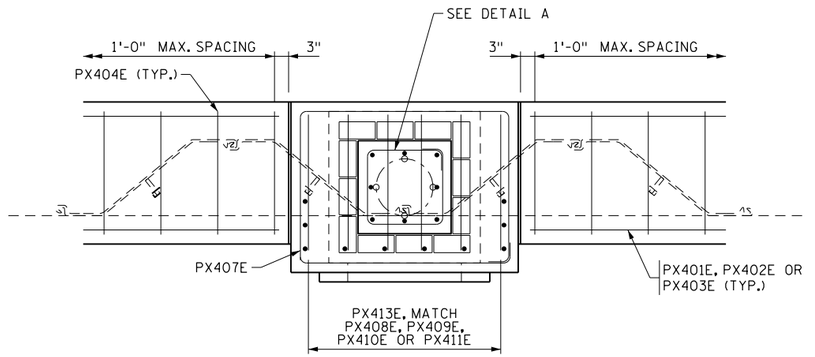
SHEET 170 OF 359



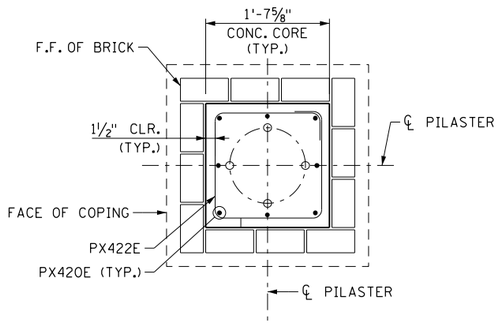
TYPICAL PILASTER REINFORCEMENT SECTION



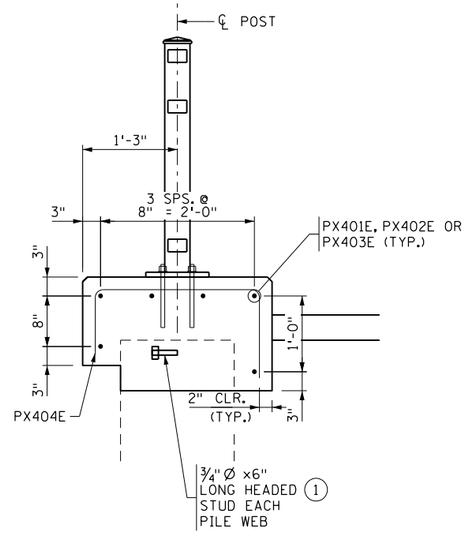
SECTION A-A



SECTION B-B



DETAIL A



SECTION C-C

NOTES:

F.F. DENOTES FRONT FACE.

1. SHEAR STUDS ARE CONSIDERED INCIDENTAL.
2. TRIM BAR AS NECESSARY TO FACILITATE PLACEMENT.

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

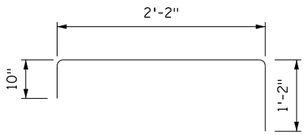
RYAN R. EVANS
LIC. NO. 53920 DATE 03-02-2022

DESIGNED	TJD
DRAWN	ATP
CHECKED	RRE

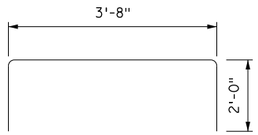
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
RETAINING WALL PLAN

SHEET 171 OF 359

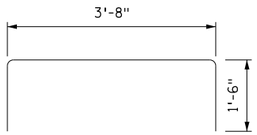
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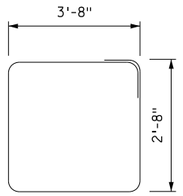
PX404E



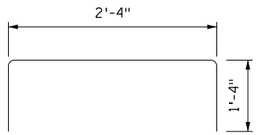
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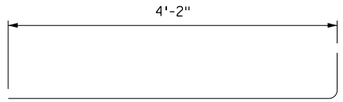
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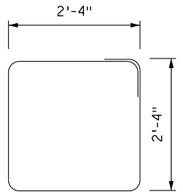
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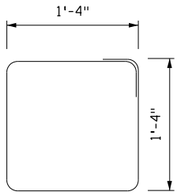
PX413E



PX420E



PX421E



PX422E

BAR BEND DETAILS

BILL OF REINFORCEMENT RETAINING WALL A

BAR	NUMBER	LENGTH	SHAPE	LOCATION
PA401E	6	39'-9"	———	PILE CAP LONG.
PA402E	18	55'-7"	———	PILE CAP LONG.
PA404E	212	4'-2"	⌐¬	PILE CAP STIRRUP
PA405E	15	7'-8"	⌐¬	PILASTER TIE
PA406E	18	6'-8"	⌐¬	PILASTER TIE
PA407E	8	13'-6"	□	PILASTER TIE
PA408E	10	11'-7"	———	PILASTER VERTICAL
PA409E	10	9'-4"	———	PILASTER VERTICAL
PA410E	10	7'-6"	———	PILASTER VERTICAL
PA411E	10	3'-1"	———	PILASTER VERTICAL
PA412E	30	3'-3"	———	PILASTER VERTICAL
PA413E	24	5'-0"	⌐¬	PILASTER STIRRUP
PA420E	32	4'-10"	———	COLUMN VERTICAL
PA421E	8	10'-2"	□	COLUMN STIRRUP
PA422E	12	6'-2"	□	COLUMN STIRRUP

BILL OF REINFORCEMENT RETAINING WALL B

BAR	NUMBER	LENGTH	SHAPE	LOCATION
PB401E	6	39'-9"	———	PILE CAP LONG.
PB402E	18	55'-7"	———	PILE CAP LONG.
PB403E	6	18'-6"	———	PILE CAP LONG.
PB404E	232	4'-2"	⌐¬	PILE CAP STIRRUP
PB405E	15	7'-8"	⌐¬	PILASTER TIE
PB406E	19	6'-8"	⌐¬	PILASTER TIE
PB407E	8	13'-6"	□	PILASTER TIE
PB408E	10	12'-4"	———	PILASTER VERTICAL
PB409E	10	10'-1"	———	PILASTER VERTICAL
PB410E	10	8'-1"	———	PILASTER VERTICAL
PB411E	10	4'-7"	———	PILASTER VERTICAL
PB412E	30	3'-3"	———	PILASTER VERTICAL
PB413E	24	5'-0"	⌐¬	PILASTER STIRRUP
PB420E	32	4'-10"	———	COLUMN VERTICAL
PB421E	8	10'-2"	□	COLUMN STIRRUP
PB422E	12	6'-2"	□	COLUMN STIRRUP

BILL OF REINFORCEMENT RETAINING WALL C

BAR	NUMBER	LENGTH	SHAPE	LOCATION
PC401E	6	38'-5"	———	PILE CAP LONG.
PC402E	18	55'-7"	———	PILE CAP LONG.
PC404E	211	4'-2"	⌐¬	PILE CAP STIRRUP
PC405E	15	7'-8"	⌐¬	PILASTER TIE
PC406E	15	6'-8"	⌐¬	PILASTER TIE
PC407E	8	13'-6"	□	PILASTER TIE
PC408E	10	11'-10"	———	PILASTER VERTICAL
PC409E	10	8'-9"	———	PILASTER VERTICAL
PC410E	10	5'-7"	———	PILASTER VERTICAL
PC411E	10	2'-6"	———	PILASTER VERTICAL
PC412E	30	3'-3"	———	PILASTER VERTICAL
PC413E	24	5'-0"	⌐¬	PILASTER STIRRUP
PC420E	32	4'-10"	———	COLUMN VERTICAL
PC421E	8	10'-2"	□	COLUMN STIRRUP
PC422E	12	6'-2"	□	COLUMN STIRRUP

BILL OF REINFORCEMENT RETAINING WALL D

BAR	NUMBER	LENGTH	SHAPE	LOCATION
PD401E	6	38'-5"	———	PILE CAP LONG.
PD402E	18	55'-7"	———	PILE CAP LONG.
PD404E	211	4'-2"	⌐¬	PILE CAP STIRRUP
PD405E	15	7'-8"	⌐¬	PILASTER TIE
PD406E	18	6'-8"	⌐¬	PILASTER TIE
PD407E	8	13'-6"	□	PILASTER TIE
PD408E	10	12'-4"	———	PILASTER VERTICAL
PD409E	10	9'-9"	———	PILASTER VERTICAL
PD410E	10	6'-7"	———	PILASTER VERTICAL
PD411E	10	3'-0"	———	PILASTER VERTICAL
PD412E	30	3'-3"	———	PILASTER VERTICAL
PD413E	24	5'-0"	⌐¬	PILASTER STIRRUP
PD420E	32	4'-10"	———	COLUMN VERTICAL
PD421E	8	10'-2"	□	COLUMN STIRRUP
PD422E	12	6'-2"	□	COLUMN STIRRUP

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REV.	BY	DATE

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RYAN R. EVANS
LIC. NO. 53920 DATE 03-02-2022

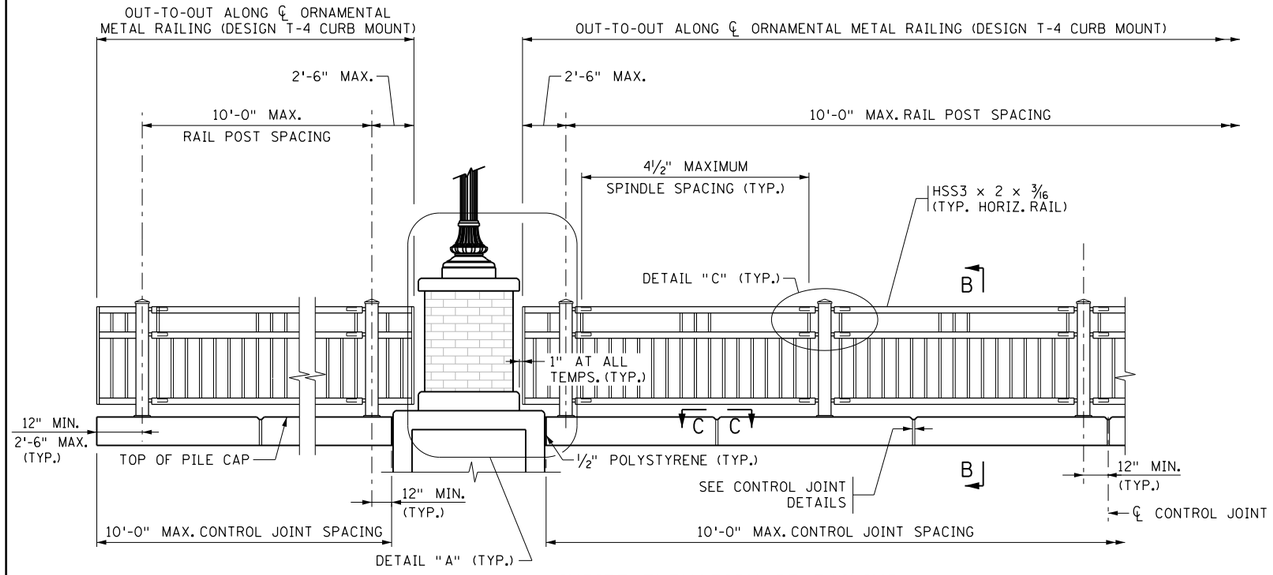
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CHECKED	RRE

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
RETAINING WALL PLAN

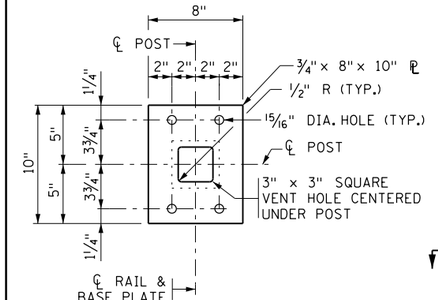
SHEET 172 OF 359

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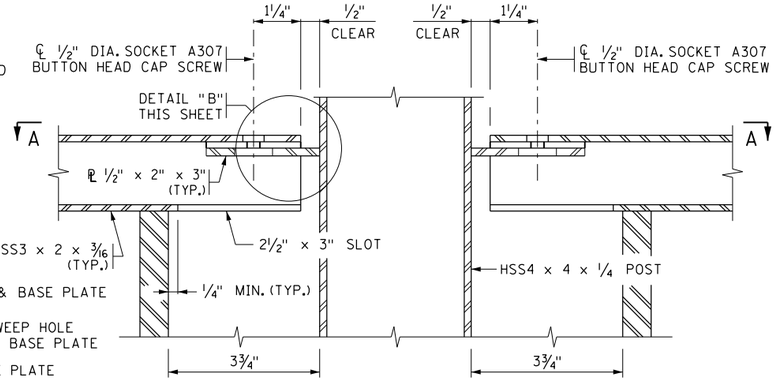
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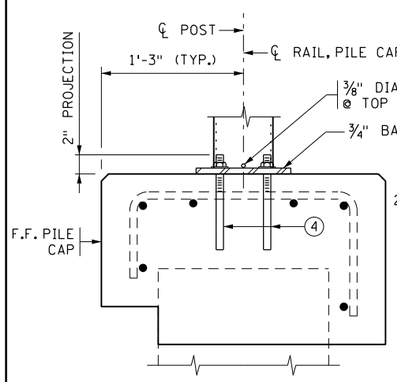
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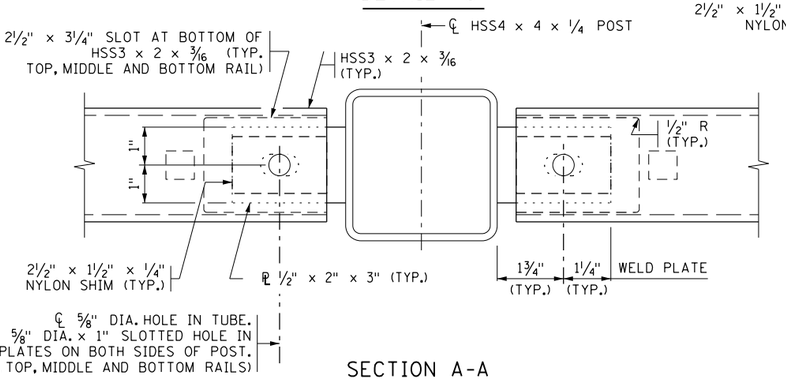
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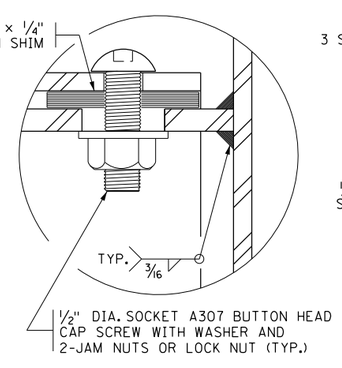
DETAIL "C"



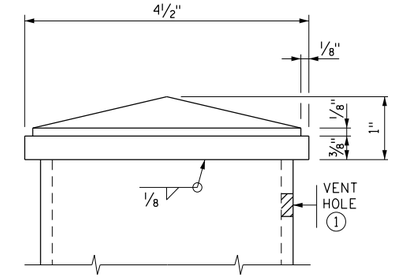
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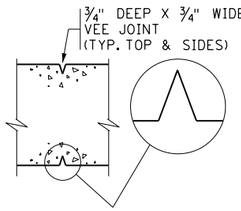
SECTION A-A



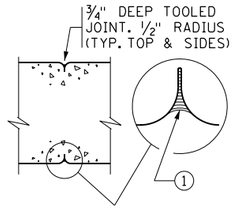
DETAIL "B"



RAILPOST CAP DETAIL (3)



SECTION C-C
CONTRACTOR OPTION 1



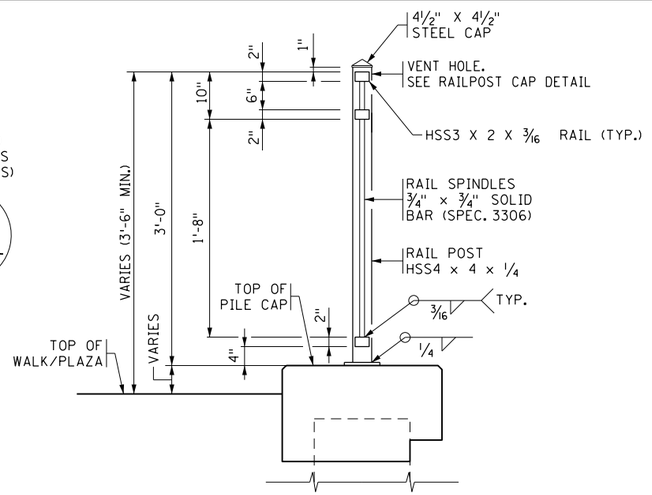
SECTION C-C
CONTRACTOR OPTION 2

CONTROL JOINT DETAILS

WHEN USING SLIP FORM METHOD TO PLACE THE CONCRETE, CUT JOINT 3 INCHES DEEP USING MARGIN TROWEL OR SIMILAR MEANS IMMEDIATELY AFTER CONCRETE PLACEMENT (TYP. THREE SIDES)

MODIFICATIONS:

- MODIFIED TO INCLUDE PILASTER AND PILE CAP DETAILS.
- INCLUDED CONTROL JOINT DETAIL.



SECTION B-B

GENERAL NOTES

CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.

PAYMENT LENGTH SHALL BE MEASURED AS THE OUT TO OUT LENGTH ALONG THE CENTERLINE OF THE RAILING BETWEEN THE OUTSIDE ENDS, WITH DEDUCTIONS FOR THE LENGTH OF CONCRETE PILASTERS.

PROVIDE A500, GRADE B STRUCTURAL STEEL TUBING (HSS) IN THE RAIL CONFORMING TO SPEC. 3361. PROVIDE ALL OTHER STEEL IN ACCORDANCE WITH SPEC. 3306.

GALVANIZE BOLTS, NUTS, WASHERS AND ANCHORS IN ACCORDANCE WITH SPEC. 3392. GALVANIZE ALL OTHER STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3394, AFTER FABRICATION.

SEE SPECIAL PROVISIONS FOR COATING TO BE APPPLIED TO METAL RAILING.

INSTALL RAIL POSTS AND SPINDLES PLUMB.

CURVE HORIZONTAL RAILS WHERE APPLICABLE AND PLACE RAILS PARALLEL TO THE EDGE OF SIDEWALK PROFILE.

SEE SPECIAL PROVISIONS FOR REQUIREMENTS NOT INCLUDED ON THIS SHEET.

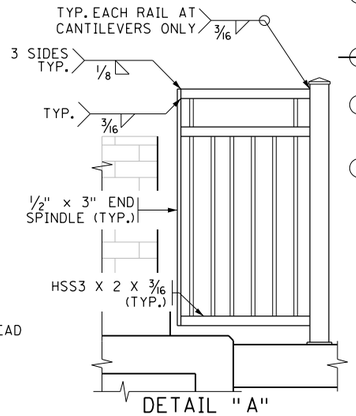
DRILL ½" DIA. MAX. VENT HOLES ON THE UNDERSIDE OF RAIL TUBES AS NECESSARY TO FACILITATE GALVANIZING.

(1) DRILL VENT HOLE IN THE RAIL POST WITHIN 2" OF THE UNDERSIDE OF THE CAP, ON THE NON-TRAFFIC SIDE OF THE POST AS NECESSARY TO FACILITATE GALVANIZING. MAXIMUM HOLE SIZE IS ½" DIA.

~~(2) SEE CONCRETE CURB PLAN SHEET FOR CONTROL JOINT SPACING AND DETAILS.~~

(3) PROVIDE A PYRAMID TOP STYLE STEEL CAP WELDED TO TOP OF POST WITH A SURFACE FINISH OF 1000 MICRO-INCH, OR SMOOTHER, PRIOR TO GALVANIZING.

(4) ADHESIVE ANCHORAGE WITH ⅝" DIA. ANCHOR ROD IN ACCORDANCE WITH SPEC. 3385, TYPE A WITH HEX NUT AND WASHER. PROVIDE AN ADHESIVE WITH A MINIMUM CHARACTERISTIC BOND STRENGTH IN UNCRACKED CONCRETE OF 1.5 KSI. EMBED THE ANCHORAGE NO LESS THAN 8" REGARDLESS OF CHARACTERISTIC BOND STRENGTH. DRILL THROUGH REINFORCEMENT (IF ENCOUNTERED) TO ACHIEVE MINIMUM EMBEDMENT. ENSURE HEX NUT IS IN CONTACT WITH THE ADJACENT SURFACE AND TORQUE TO 60 FT-LBS UNLESS A HIGHER TORQUE IS RECOMMENDED BY THE MANUFACTURER. PROOF LOAD TO 8.8 KIPS. REFER TO THE APPROVED/QUALIFIED PRODUCTS LIST AND THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.



DETAIL "A"

REVISION: APRIL 21, 2021

APPROVED: NOVEMBER 6, 2013

Nancy L. Daubenberger
STATE BRIDGE ENGINEER

I HEREBY CERTIFY THAT THIS PLAN SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

CERTIFIED BY: [signature] — LICENSED PROFESSIONAL ENGINEER — 03-02-2022 DATE

NAME: RYAN R. EVANS — LIC. NO. 53920

TITLE: ORNAMENTAL METAL RAILING (DESIGN T-4 CURB MOUNT)

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CHK:	RRE	CHK:	RRE	

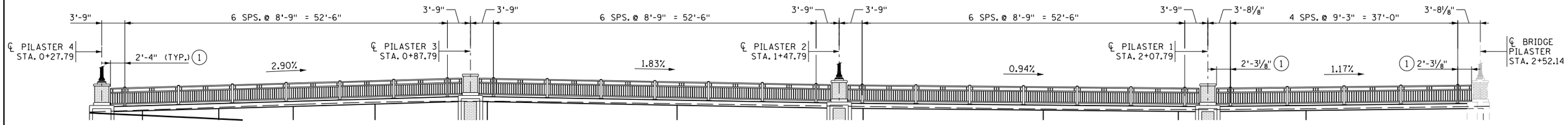
SHEET NO. 173 OF 359 SHEETS

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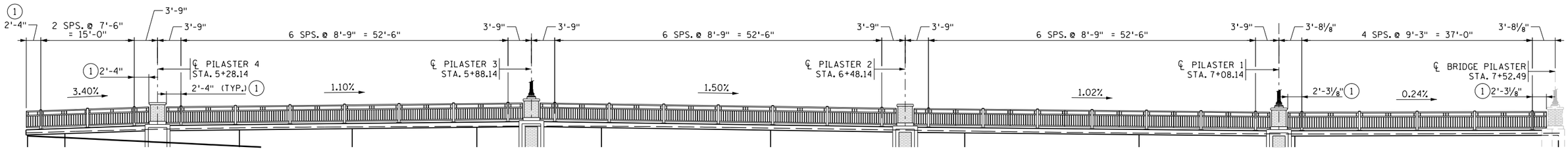
S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014

FIG. 5-397.163

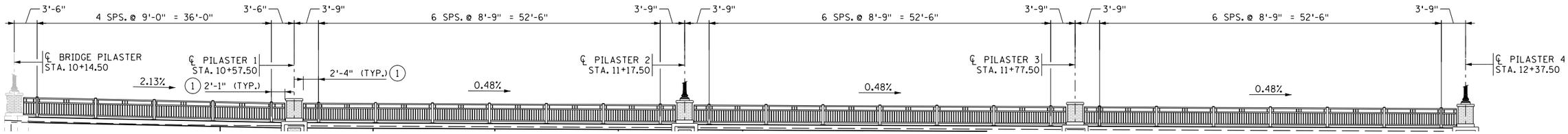
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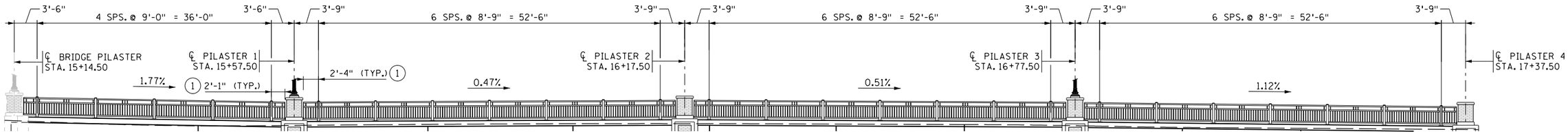
ORNAMENTAL RAILING POST SPACING - RETAINING WALL A



ORNAMENTAL RAILING POST SPACING - RETAINING WALL B



ORNAMENTAL RAILING POST SPACING - RETAINING WALL C



ORNAMENTAL RAILING POST SPACING - RETAINING WALL D

NOTES:

POST SPACING SHOWN AT TOP OF CONCRETE CURB.

SEE SHEET NO. 173 FOR ORNAMENTAL RAILING DETAILS.

PILE CAP AND RAILING GRADE SHOWN. SEE SIDEWALK CONSTRUCTION PROFILE SHEETS FOR TOP OF PLAZA/WALK PROFILE DATA.

(1) ℄ POST TO END OF RAILING

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

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RYAN R. EVANS
LIC. NO. 53920 DATE 03-02-2022

DESIGNED	TJD
DRAWN	ATP
CHECKED	RRE

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
RETAINING WALL PLAN

SHEET 174 OF 359

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GENERAL NOTES:

1. RETAINING WALL ALIGNMENT MEASURED ALONG REFERENCE LINE WHICH IS FRONT FACE OF WALL. SEE ALIGNMENT TABULATIONS FOR WALL ALIGNMENT INFORMATION.
2. UTILITIES SHOWN FOR REFERENCE ONLY.
3. SEE SIDEWALK CONSTRUCTION PROFILE SHEETS FOR TOP OF PLAZA/WALK PROFILE DATA.

NOTES:

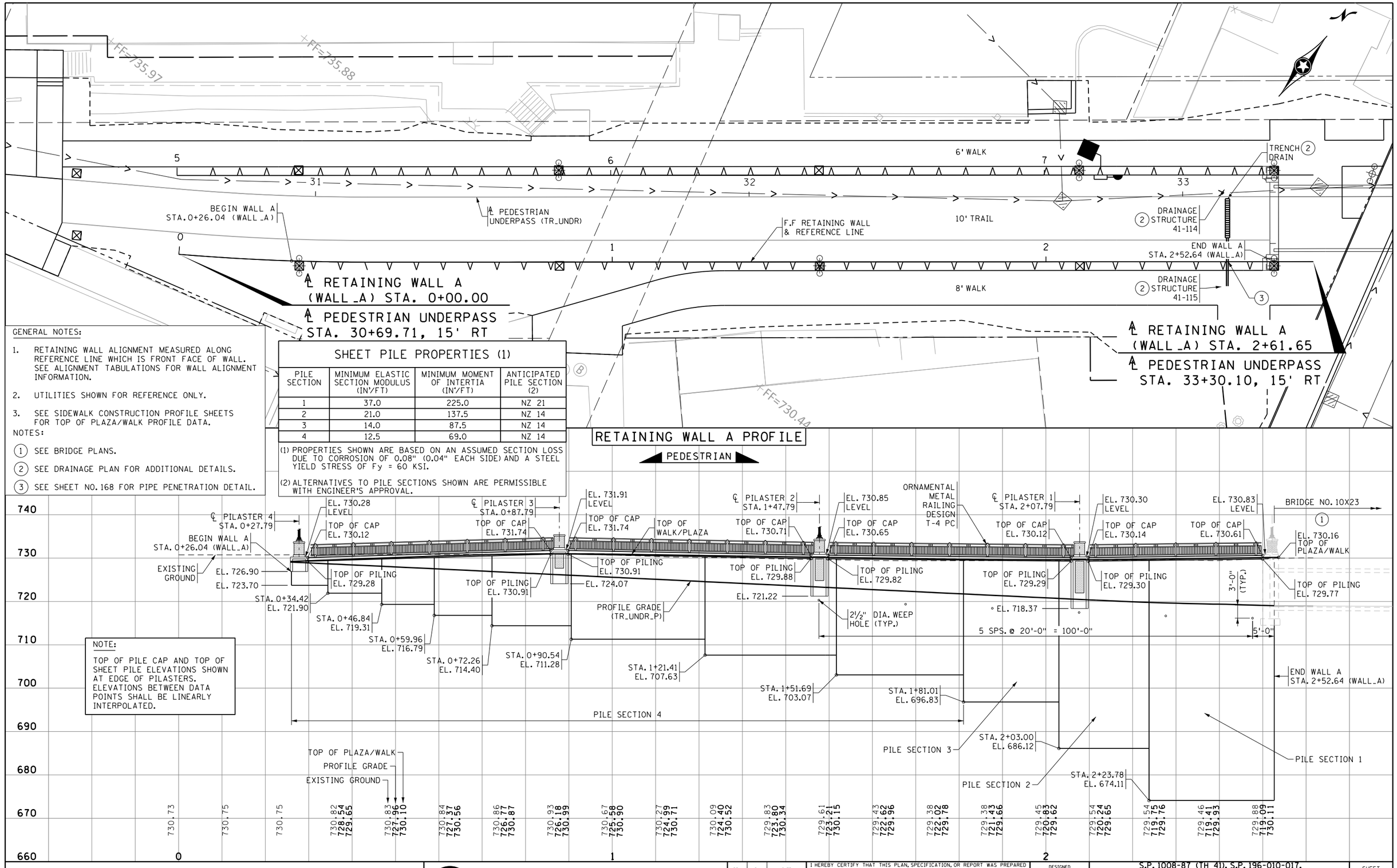
(1) SEE BRIDGE PLANS.
(2) SEE DRAINAGE PLAN FOR ADDITIONAL DETAILS.
(3) SEE SHEET NO. 168 FOR PIPE PENETRATION DETAIL.

SHEET PILE PROPERTIES (1)

PILE SECTION	MINIMUM ELASTIC SECTION MODULUS (IN³/FT)	MINIMUM MOMENT OF INTERTIA (IN⁴/FT)	ANTICIPATED PILE SECTION (2)
1	37.0	225.0	NZ 21
2	21.0	137.5	NZ 14
3	14.0	87.5	NZ 14
4	12.5	69.0	NZ 14

(1) PROPERTIES SHOWN ARE BASED ON AN ASSUMED SECTION LOSS DUE TO CORROSION OF 0.08" (0.04" EACH SIDE) AND A STEEL YIELD STRESS OF Fy = 60 KSI.

(2) ALTERNATIVES TO PILE SECTIONS SHOWN ARE PERMISSIBLE WITH ENGINEER'S APPROVAL.



RETAINING WALL A PROFILE

PEDESTRIAN

NOTE:

TOP OF PILE CAP AND TOP OF SHEET PILE ELEVATIONS SHOWN AT EDGE OF PILASTERS. ELEVATIONS BETWEEN DATA POINTS SHALL BE LINEARLY INTERPOLATED.

0 10 20
SCALE FEET

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
(952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

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RYAN R. EVANS
LIC. NO. 53920 DATE 03-02-2022

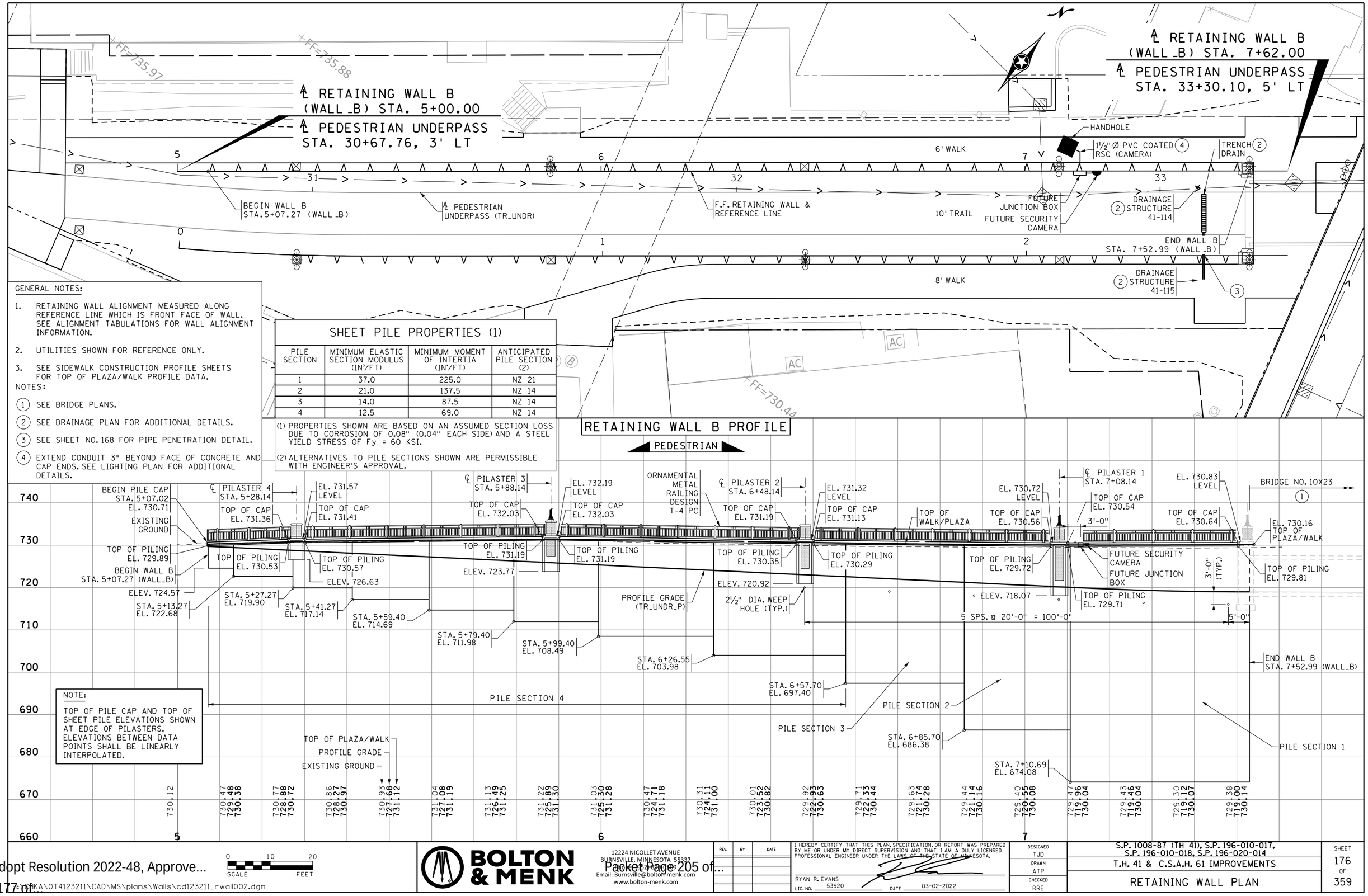
DESIGNED	TJD
DRAWN	ATP
CHECKED	RRE

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

RETAINING WALL PLAN

SHEET 175 OF 359

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GENERAL NOTES:

1. RETAINING WALL ALIGNMENT MEASURED ALONG REFERENCE LINE WHICH IS FRONT FACE OF WALL. SEE ALIGNMENT TABULATIONS FOR WALL ALIGNMENT INFORMATION.
2. UTILITIES SHOWN FOR REFERENCE ONLY.
3. SEE SIDEWALK CONSTRUCTION PROFILE SHEETS FOR TOP OF PLAZA/WALK PROFILE DATA.

NOTES:

(1) SEE BRIDGE PLANS.

(2) SEE DRAINAGE PLAN FOR ADDITIONAL DETAILS.

(3) SEE SHEET NO. 168 FOR PIPE PENETRATION DETAIL.

(4) EXTEND CONDUIT 3" BEYOND FACE OF CONCRETE AND CAP ENDS. SEE LIGHTING PLAN FOR ADDITIONAL DETAILS.

SHEET PILE PROPERTIES (1)

PILE SECTION	MINIMUM ELASTIC SECTION MODULUS (IN³/FT)	MINIMUM MOMENT OF INTERTIA (IN⁴/FT)	ANTICIPATED PILE SECTION (2)
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3	14.0	87.5	NZ 14
4	12.5	69.0	NZ 14

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NOTE:

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0 10 20
SCALE FEET

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

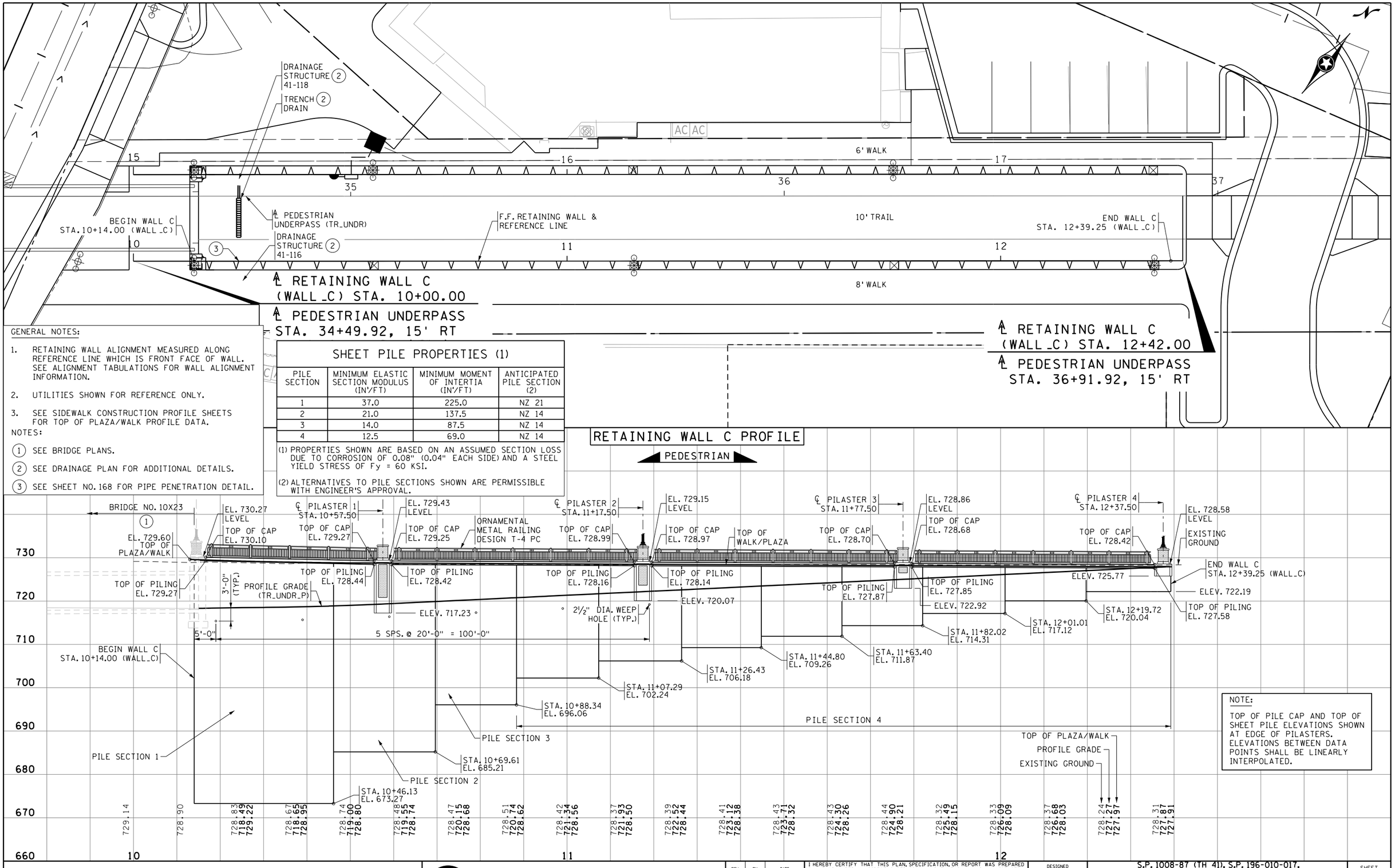
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RYAN R. EVANS
LIC. NO. 53920 DATE 03-02-2022

DESIGNED TJD
DRAWN ATP
CHECKED RRE

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
RETAINING WALL PLAN

SHEET 176 OF 359



GENERAL NOTES:

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2. UTILITIES SHOWN FOR REFERENCE ONLY.
3. SEE SIDEWALK CONSTRUCTION PROFILE SHEETS FOR TOP OF PLAZA/WALK PROFILE DATA.

NOTES:

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(2) SEE DRAINAGE PLAN FOR ADDITIONAL DETAILS.
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SHEET PILE PROPERTIES (1)

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RETAINING WALL C PROFILE

NOTE:

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BOLTON & MENK

12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
(952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

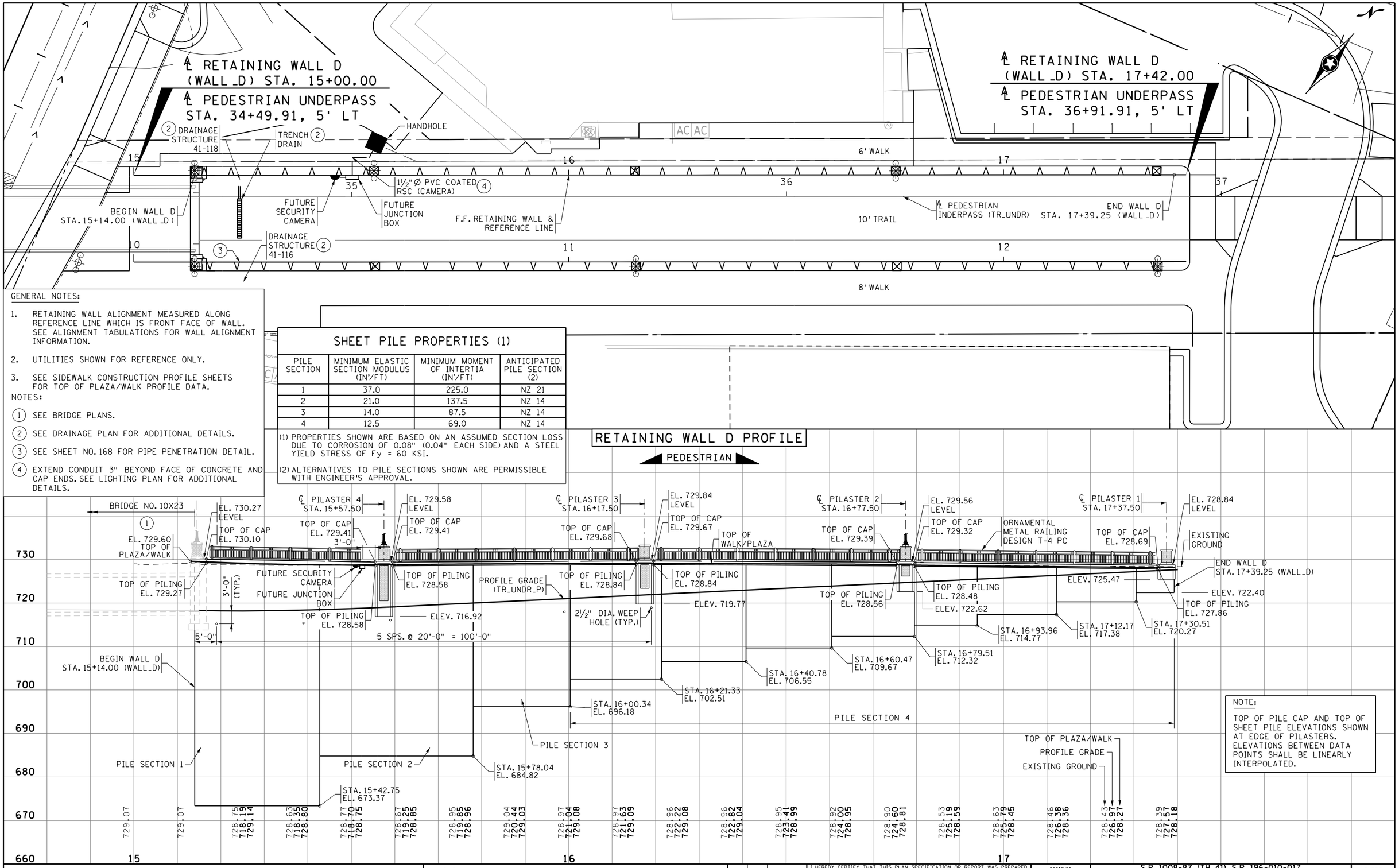
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RYAN R. EVANS
LIC. NO. 53920 DATE 03-02-2022

DESIGNED	TJD
DRAWN	ATP
CHECKED	RRE

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S.P. 196-010-018, S.P. 196-020-014
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RETAINING WALL PLAN

SHEET 177 OF 359



GENERAL NOTES:

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2. UTILITIES SHOWN FOR REFERENCE ONLY.
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4	12.5	69.0	NZ 14

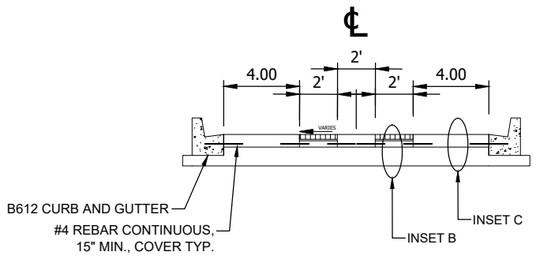
(1) PROPERTIES SHOWN ARE BASED ON AN ASSUMED SECTION LOSS DUE TO CORROSION OF 0.08" (0.04" EACH SIDE) AND A STEEL YIELD STRESS OF Fy = 60 KSI.

(2) ALTERNATIVES TO PILE SECTIONS SHOWN ARE PERMISSIBLE WITH ENGINEER'S APPROVAL.

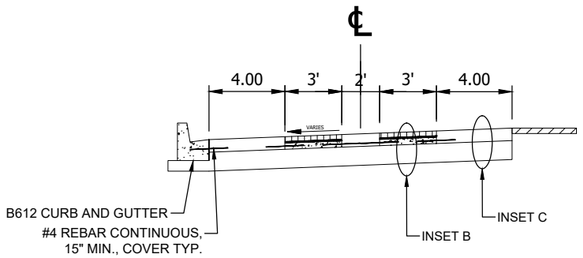
RETAINING WALL D PROFILE

PEDESTRIAN

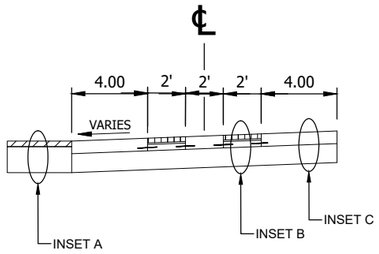
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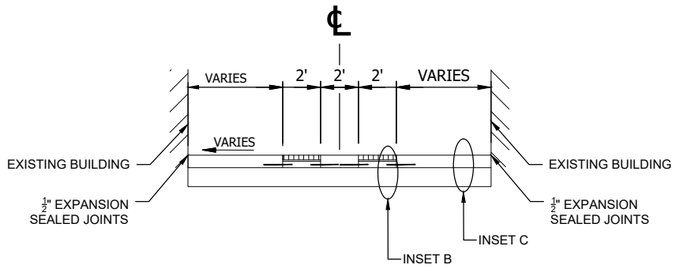
PROPOSED TYPICAL SECTION
PAVER CROSS SECTION BETWEEN
CURBS



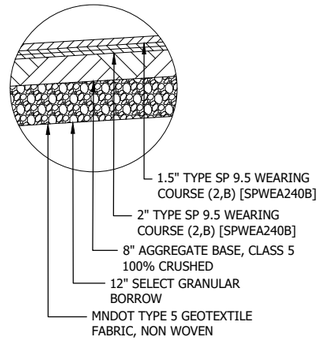
PROPOSED TYPICAL SECTION
PAVER CROSS SECTION
BETWEEN CURBS AND ASPHALT

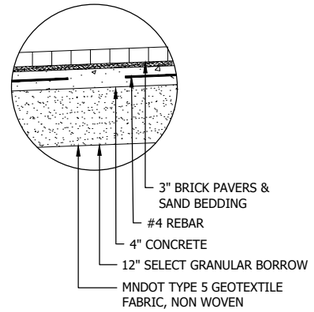


PROPOSED TYPICAL SECTION
PAVER CROSS SECTION
PARKING LOT

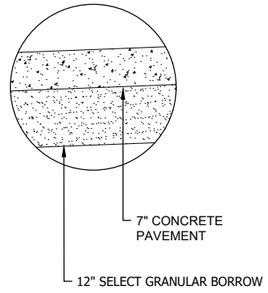


PROPOSED TYPICAL SECTION
PAVER CROSS SECTION BETWEEN
EXISTING BUILDINGS

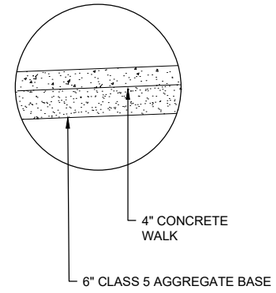


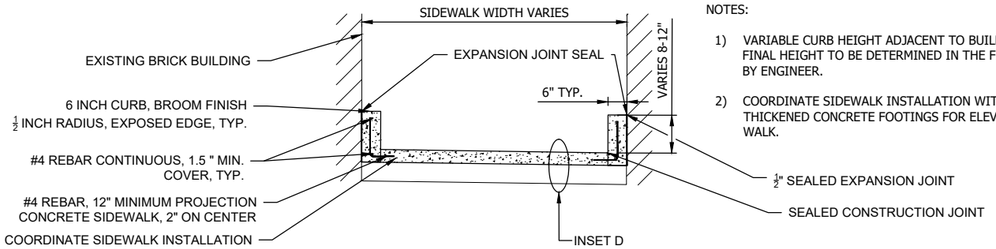


INSET A



INSET B

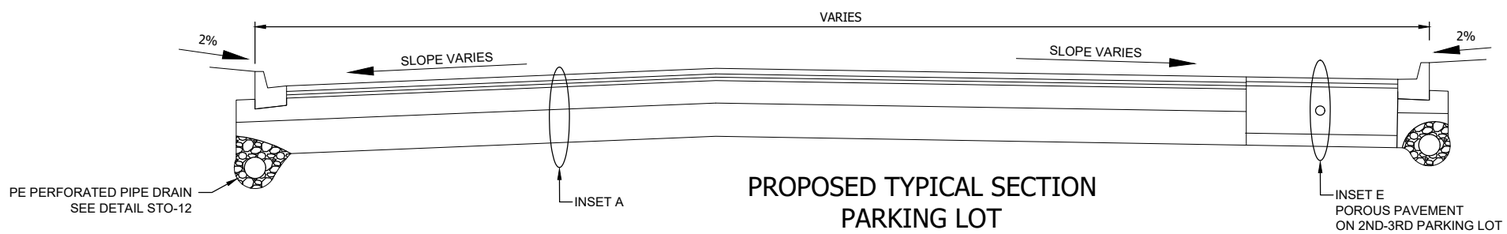




NOTES:

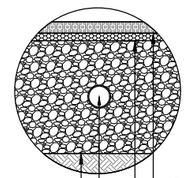
1) VARIABLE CURB HEIGHT ADJACENT TO BUILDINGS, FINAL HEIGHT TO BE DETERMINED IN THE FIELD BY ENGINEER.
2) COORDINATE SIDEWALK INSTALLATION WITH THICKENED CONCRETE FOOTINGS FOR ELEVATED WALK.

PROPOSED TYPICAL SECTION
PEDESTRIAN ALLEY WITH V-CURB

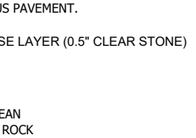


PROPOSED TYPICAL SECTION
PARKING LOT

INSET C



INSET D



INSET E

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733 Marquette Avenue, Suite 1000
Minneapolis MN 55402
www.stantec.com

REV.	BY	DATE

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TYPICAL PARKING LOT SECTIONS

SHEET 179 OF 359

Plotted: 03/16/2022 - cd1Pl-1
Drawing: C:\Users\...\dp_jhfa01stma8398\cp123211_cp2-Parking\pl.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_elrw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_cp

PEDESTRIAN ALLEY
(SEE SHEET 184)

C-PED-ALLEY

C-2nd-3rd-ParkingLot-West-LOC-N

2ND-3RD PARKING LOT
(SEE SHEET 182)

TRASH ENCLOSURE S-1.
(SEE SHEET 200)

C-2nd-3rd-ParkingLot-East-LOC-N

POROUS PAVEMENT
(SEE SHEET 179)

2ND-3RD ALLEY
(SEE SHEET 181)

C-2nd-3rd_Alley

TRASH ENCLOSURE S-2.
(SEE SHEET 200)

REMOVE EXITING CURB PROTECTION ALONG WALNUT STREET. 1.5" BITUMINOUS WEARING COURSE. RESTRIPE PARKING LOT AS SHOWN

2ND STREET

3RD STREET

WALNUT STREET

BP: 0+00.00

PC: 1+25.53

PT: 1+45.21

PC: 2+52.25

PT: 2+67.19

EP: 2+75.87

PT: 1+34.95

PC: 1+38.91

PT: 2+58.55

PC: 2+64.06

PI: 1+59.26

PC: 0+97.13

PT: 1+06.59

EP: 1+97

EP: 3+81.02

HATCH LEGEND

3.5" BITUMINOUS	4" CONCRETE
7" CONCRETE	POROUS PAVEMENT
	1.5" WEARING COURSE

0 15' 30'

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733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

2ND-3RD PARKING LOT PLAN

SHEET 180 OF 359

Date/Time: 3/16/2022 - 09:21 Plotted by: Johnson, Jeffrey
Drawing: C:\Projects\2020\053\Design\Civil\Plan Sheets\cp\cp123211_cp2-Parking\cd123211_cp2-Parking\cd.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_ew, cd123211_row, cd123211_bsp, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_bsp_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Public, cd123211_ut_Storm, cd123211_ut_Water, cd123211_ut_Sanitary, cd123211_ut_Ph_Infra01dms80398cp123211_cp2-Parking\cd.dwg

2ND-3RD ALLEY

HATCH LEGEND

- 3.5" BITUMINOUS
- 4" – 6" CONCRETE
- 7" CONCRETE
- POROUS PAVEMENT

INSTALL RAMP WITH LANDING AND RAILING. (SEE SHEET 199)

ADD CONCRETE STEP AT DOORWAY

CONSTRUCT STONE RETAINING WALL

BEGIN VALLEY GUTTER STA.=0+45.60, 73.0S=0.00'

END VALLEY GUTTER STA.=0+07.98, 71.0S=0.00'

C-2nd-3rd_Alley

C-2nd-3rd-ParkingLot-East-LOC-N

0+60.5, 4.00' L 2.33' RAD. PT. @ BOC

1+27.7, 6.00' R 4.33' RAD. PT. @ BOC

1+45.2, 4.00' R 2.33' RAD. PT. @ BOC

2+03.8, 4.00' L 2.33' RAD. PT. @ BOC

2+17.4, 1.43' L 0.33' RAD. PT. @ BOC

2+58.5, 4.00' R 2.33' RAD. PT. @ BOC

2+67.2, 1.98' R 0.33' RAD. PT. @ BOC

PC: 1+25.52 PT: 1+06.59 PC: 0+97.13 PT: 1+45.21 PI: 1+59.26 PC: 2+52.25 PT: 2+67.19 EP: 2+75.87 BP: 0+00.00 EP: 3+81.02

2ND STREET 3RD STREET

0 15' 30'

PROFILE

PVI STA = 1+85.18
PVI ELEV = 730.09
K = 17.59
50.00' VC

PVIS: 0+35.51	PVIE: 720.95
PVIS: 0+43.93	PVIE: 721.03
PVIS: 0+78.33	PVIE: 722.99
PVIS: 1+16.31	PVIE: 725.76
BVCS: 1+60.18	BVCE: 728.52
EVCS: 2+10.18	EVCE: 730.95
PVIS: 2+94.42	PVIE: 733.85
PVIS: 3+40.96	PVIE: 734.88
PVIS: 3+49.00	PVIE: 734.73
PVIS: 3+66.94	PVIE: 733.29
PVIS: 3+81.02	PVIE: 733.61

0.93% 5.72% 7.28% 6.29% 3.44% 2.21% 1.81% 8.04% 2.24%

| | | |

HATCH LEGEND

3.5" BITUMINOUS | 4" 6" CONCRETE | 7" CONCRETE | POROUS PAVEMENT

C-PED-ALLEY

C-2nd-3rd-ParkingLot-West-LOC-N

C-2nd-3rd-ParkingLot-East-LOC-N

C-2nd-3rd_Alley

3RD STREET

PROTECT EX. CONCRETE

PROTECT EX. CONCRETE

B612 C&G

B612 C&G

B612 C&G

B612 C&G

0+60.5, 4.00' L
2.33' RAD. PT. @ BOC

PT: 0+63.28

PC: 0+60.54

PT: 0+59.78

PC: 0+45.60

BEGIN VALLEY GUTTER
STA.=0+45.60,
OS=0.00'

1+27.7, 6.00' R
4.33' RAD. PT. @ BOC

PC: 1+25.53

END VALLEY GUTTER
STA.=0+07.98,
OS=0.00'

TIP OUT CURB

PT: 1+06.59

BP: 0+00.00

EP: 1+07.75

PT: 1+34.95

PC: 1+38.91

1+45.2, 4.00' R
2.33' RAD. PT. @ BOC

PT: 1+45.21

PT: 1+59.26

PC: 0+97.13

1.01%
PI: 1+89.34

2+03.8, 4.00' L
2.33' RAD. PT. @ BOC

2+17.4, 1.43' L
0.38' RAD. PT. @ BOC

PT: 2+17.41

PC: 2+14.26

PT: 2+10.03

PC: 2+03.77

2+58.5, 4.00' R
2.33' RAD. PT. @ BOC

PT: 2+58.55

PC: 2+64.06

2+67.2, 1.98' R
0.33' RAD. PT. @ BOC

PT: 2+67.19

EP: 2+75.87

PC: 2+52.26

BP: 0+00.00

EP: 3+81.02

FF=730.17

FF=732.66

FF=732.85

FF=733.23

FF=733.33

FF=735.48

WARP OR STRAIGHT GRADE EAST EDGE OF ALLEY FROM CENTERLINE OF PROPOSED ALLEY TO LIP OF B612 IN THIS AREA ONLY

0 5' 10'

Stantec
733 Marquette Avenue, Suite 1000
www.stantec.com

REV.	BY	DATE

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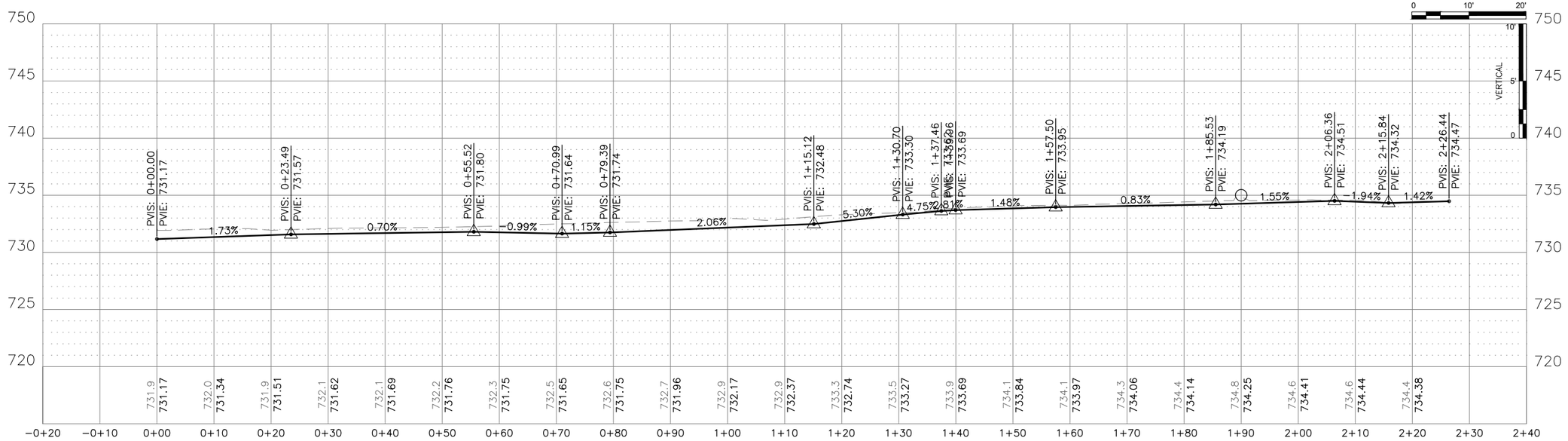
ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED MRR
DRAWN JLT/PJW
CHECKED MRL

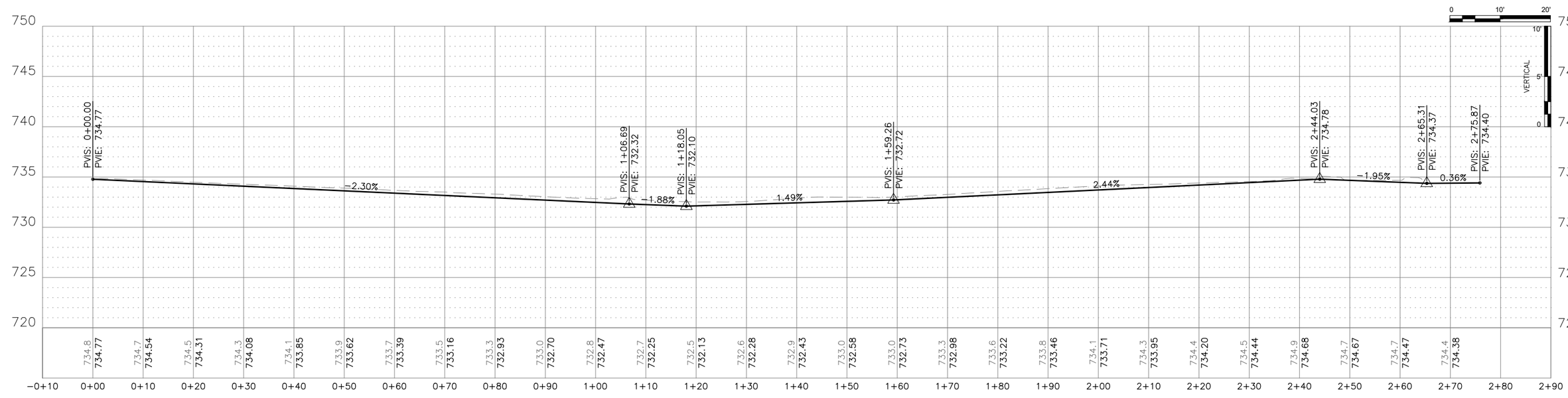
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
2ND-3RD PARKING LOT PLAN

SHEET 182 OF 359

Date/Time: 3/4/2022, qpPk_3
Drawing: C:\Civil_3d_3h_infra\1\dms80398\cp123211_cp2-Parking1.dt.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_erw, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut



C-2ND-3RD-PARKINGLOT-WEST-LOC-N



C-2ND-3RD-PARKINGLOT-EAST-LOC-N

Plotted: Date 3/6/2022 - cs2PL-4
Drawing: C:\Civil 3D Projects\Projects - 4th_bh_ihfa01\dnd80398\cp\123211_cp2-ParkingLot.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_erw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Public

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

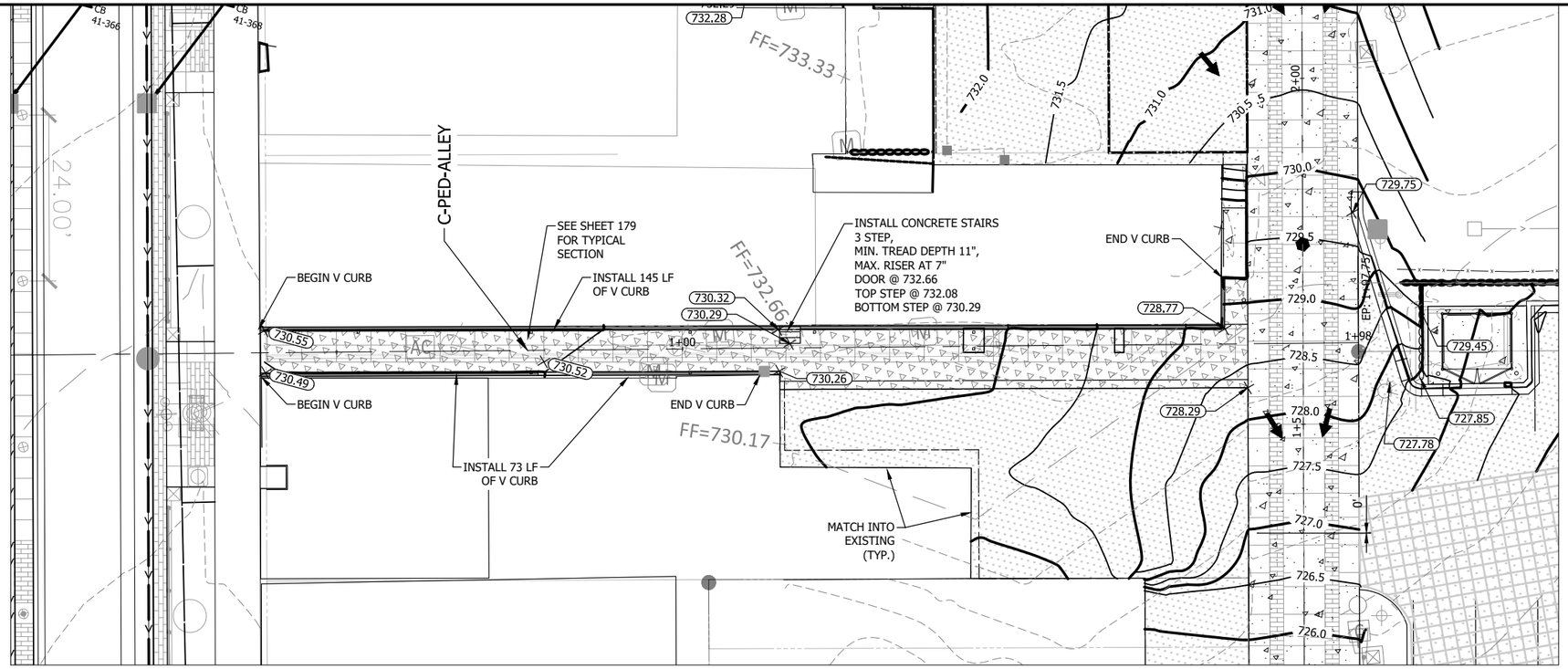
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

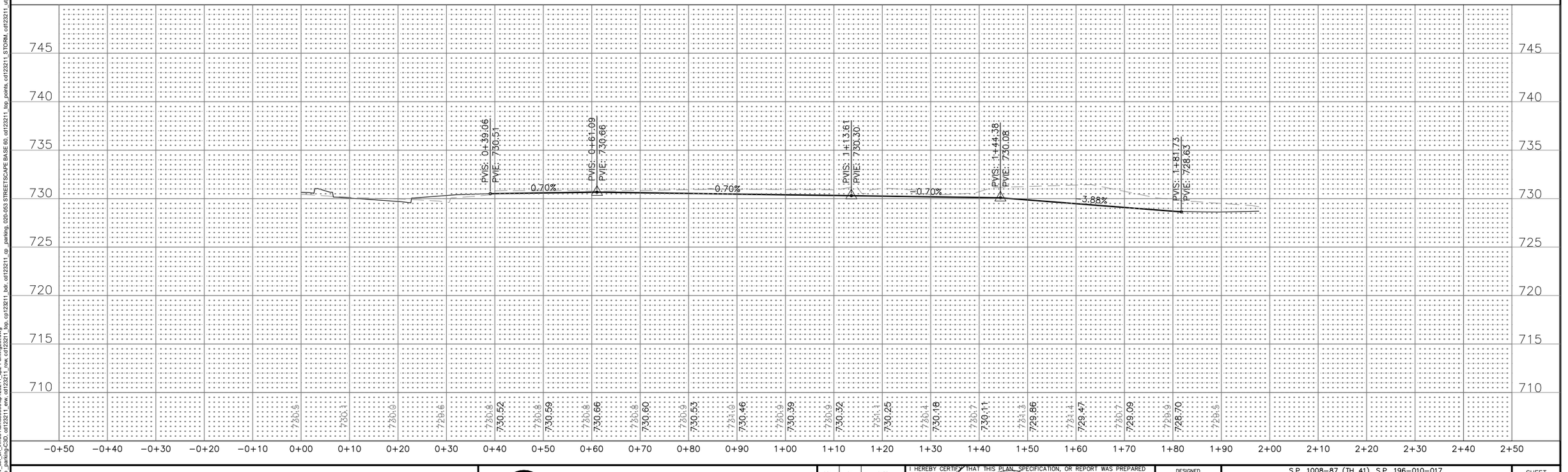
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

2ND-3RD PARKING LOT PROFILES

SHEET 183 OF 359



2ND-3RD PEDESTRIAN ALLEY



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LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

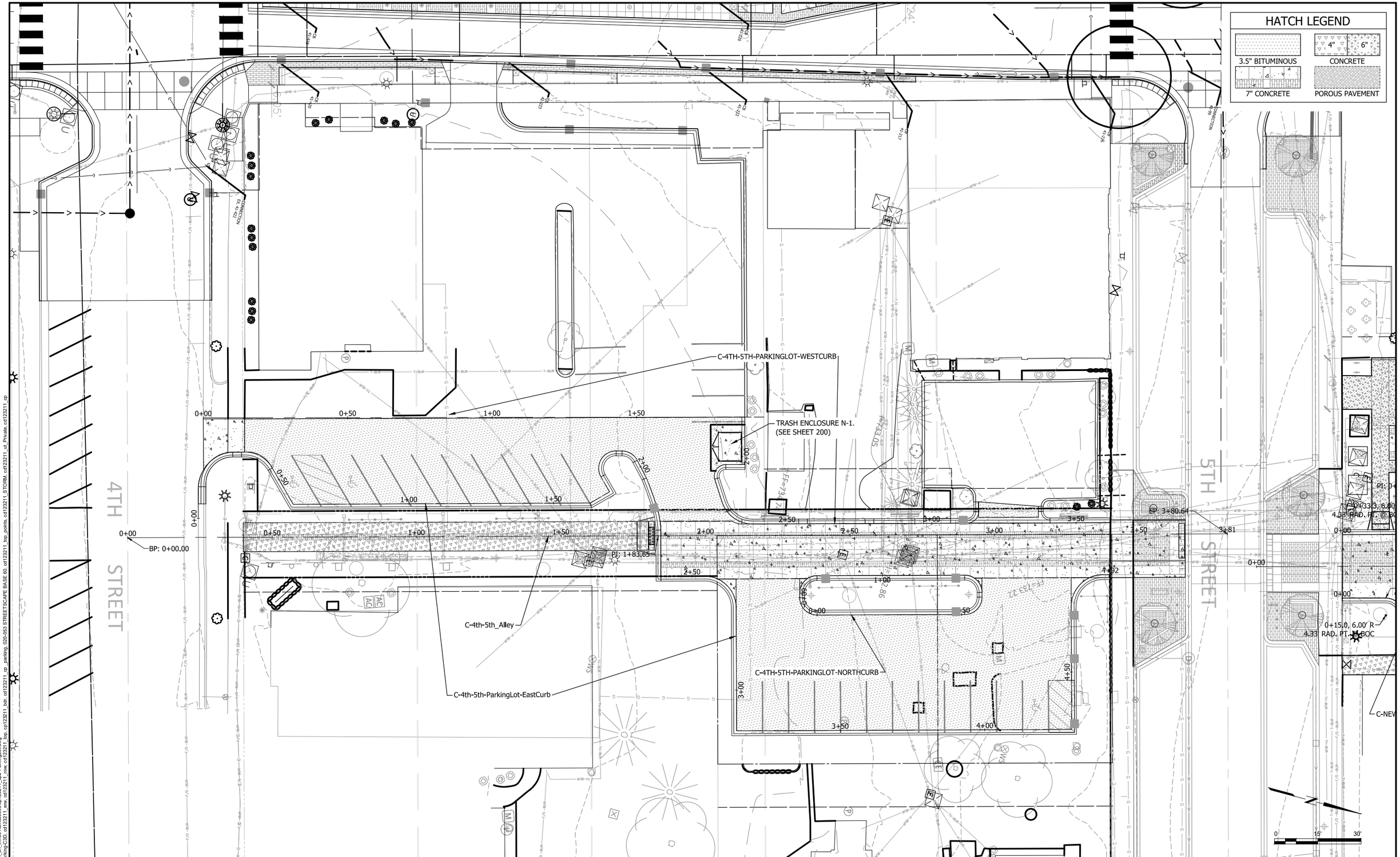
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

PEDESTRIAN ALLEY PLAN & PROFILE

SHEET 184 OF 359

Plot Date: 3/16/2022 - cdP5_5
Drawing: C:\Civil 3D Projects\...\plans\C3D\123211_ew_cd123211_row_cp123211_top_cp123211_bdr_cd123211_cp_parking_020-063 STREETSCAPE BASE 60_cd123211_top_points_cd123211_STORM_cd123211_ut_Private_cd123211_cp_parking-C3D_cd123211_ew_cd123211_row_cp123211_top_cp123211_bdr_cd123211_cp_parking_020-063 STREETSCAPE BASE 60_cd123211_top_points_cd123211_STORM_cd123211_ut_Private_cd123211_cp2-ParkingLot.dwg



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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

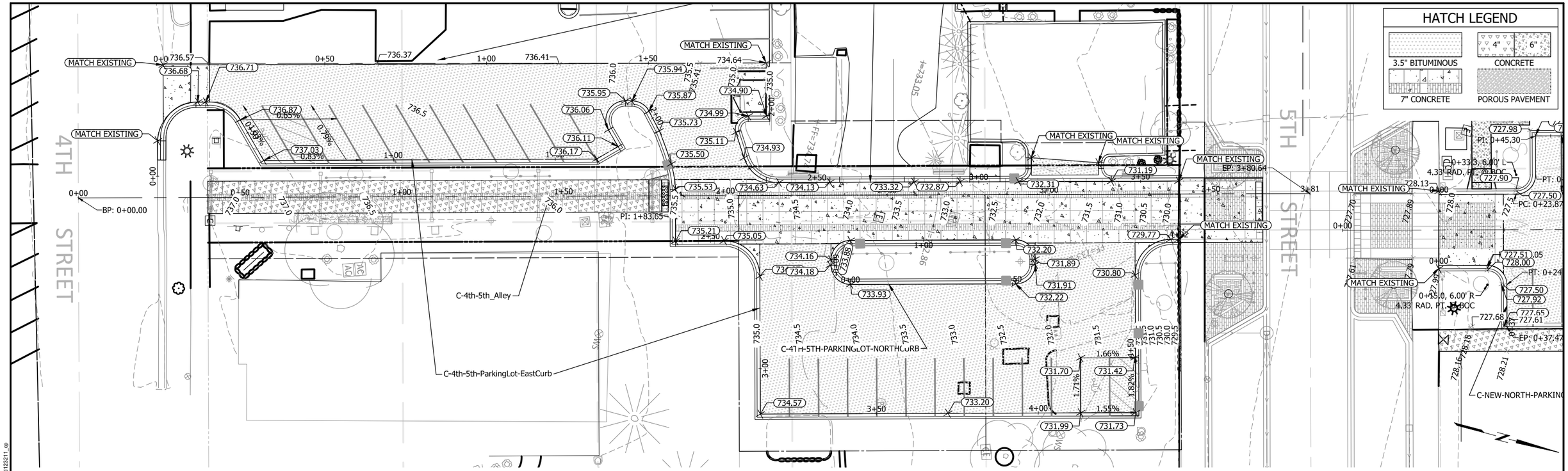
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

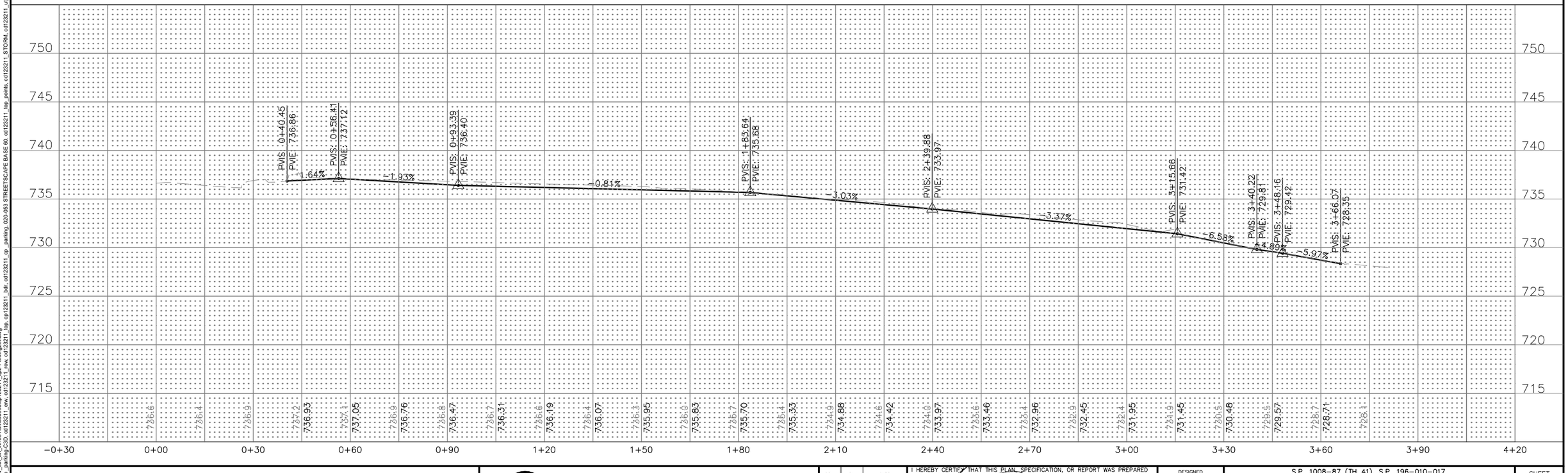
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

4TH-5TH PARKING LOT PLAN

SHEET 185 OF 359

Date/Time: 3/4/2022, 9:26:49 AM, User: jlt, Plotted by: jlt
Drawing: C:\Civil_3d_sh_nfna01\dm80398\cp123211_cp2-Parking1.dt.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_erw, cd123211_top_cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut





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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

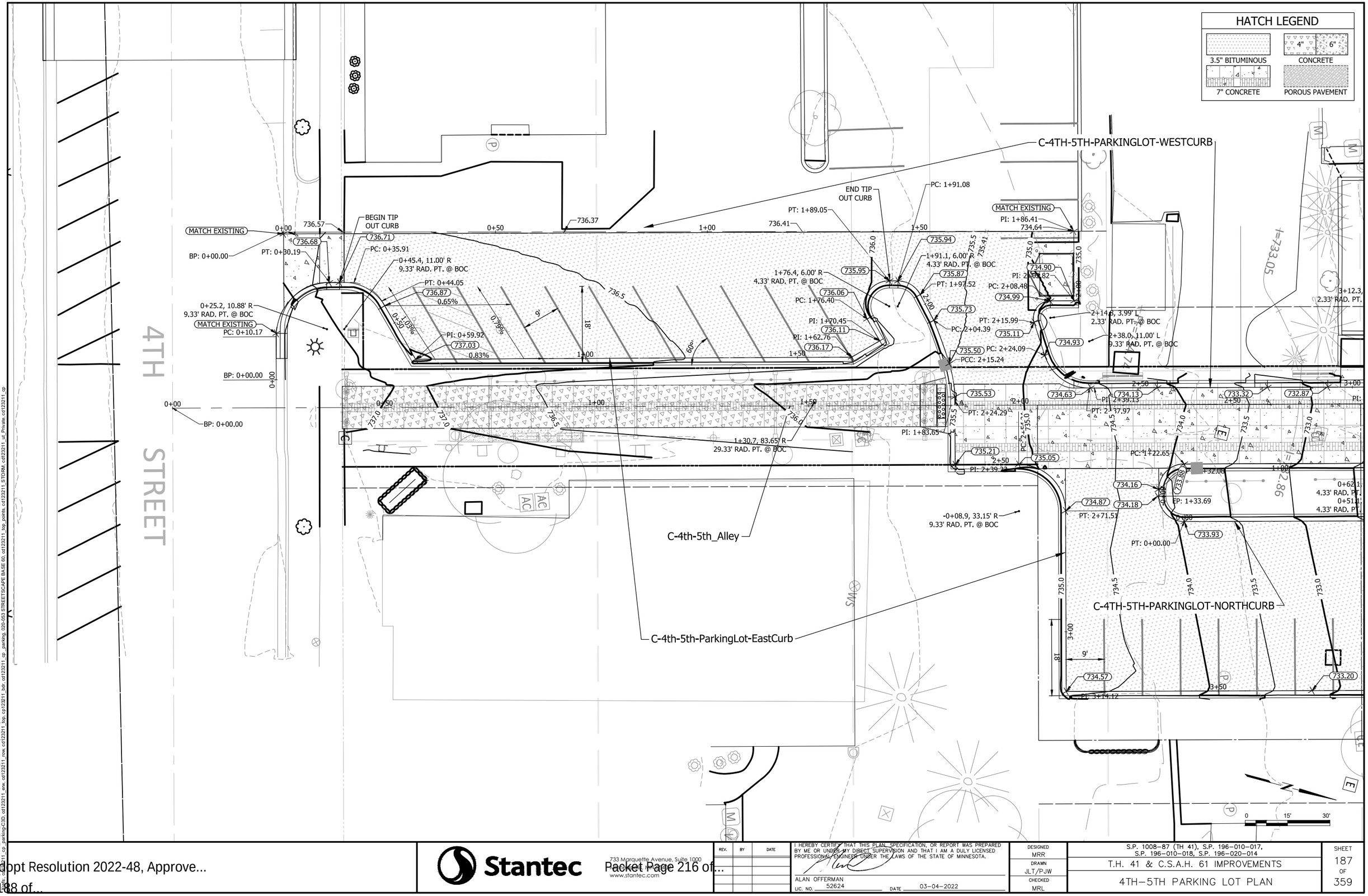
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

4TH-5TH ALLEY PLAN

SHEET 186 OF 359

Plot Date: 3/4/2022 - dPl_7
Drawing: C:\Users\jtaylor\Stantec\Documents\R123211_cp2-ParkingLot.dwg
Xrefs: c123211_cp_parking-C3D, c123211_erw, c123211_row, c123211_top, cp123211_bdr, c123211_cp_parking, 020-063 STREETSCAPE BASE 60, c123211_top_points, c123211_STORM, c123211_ut_Private, c123211_ut_Private_cd123211.cp



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DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

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S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

4TH-5TH PARKING LOT PLAN

SHEET 187 OF 359

Date/Time: 3/4/2022, cpPk_e
Drawing: C:\Civil_stp_sh_mn\d1\dsm80398\cp123211_cp2-Parking1.ct.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_env, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Public

C-4TH-5TH-PARKINGLOT-WESTCURB

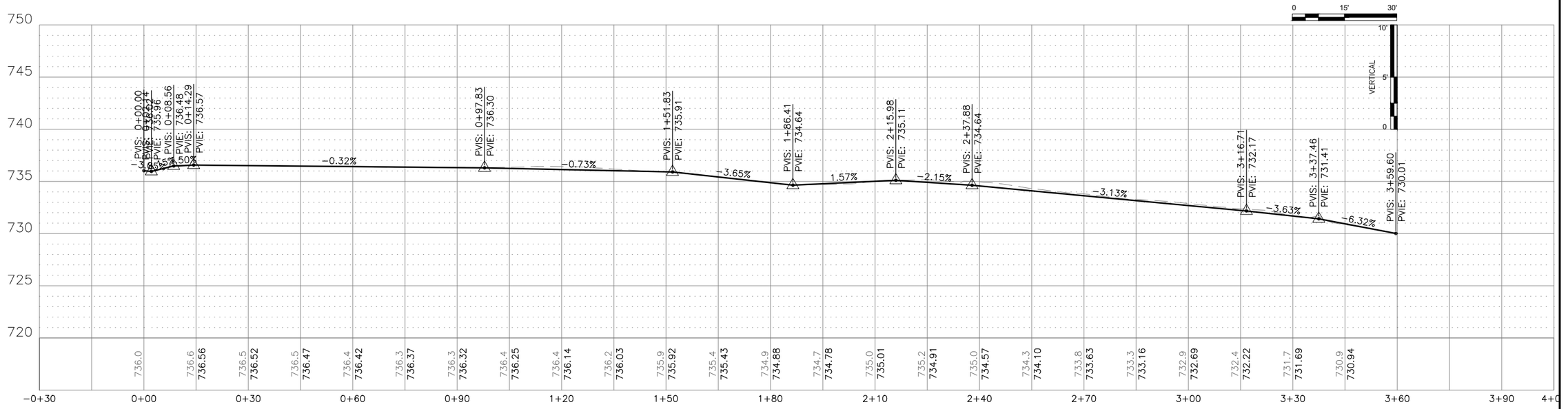
C-4th-5th_Alley

C-4th-5th-ParkingLot-EastCurb

C-4TH-5TH-PARKINGLOT-NORTHCURB

5TH STREET

PC: 1+91.08
PT: 1+89.05
MATCH EXISTING
PI: 1+86.41
734.64
736.37
736.41
735.94
735.95
735.87
PT: 1+97.52
736.06
PC: 1+76.40
735.73
PC: 2+04.39
736.11
PI: 1+62.76
736.17
735.50
PC: 2+24.09
PCC: 2+15.24
735.53
PT: 2+24.29
PI: 1+83.65
735.21
PI: 2+39.23
735.05
734.63
734.13
PI: 2+39.13
PT: 2+37.97
733.32
732.87
732.31
731.19
729.77
732.20
731.89
731.91
732.22
730.80
734.87
PT: 2+71.51
734.18
734.16
733.88
733.93
PT: 0+00.00
734.57
733.20
731.99
731.73
731.70
731.42
PI: 4+39.09
734.90
PI: 2+08.82
PC: 2+08.48
734.99
734.93
735.11
735.0
734.5
734.0
733.5
733.0
732.5
732.0
731.5
731.0
730.5
730.0
729.5
736.5
736.0
735.5
735.41
736.80
736.40
736.37
736.41
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733.88
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729.77
732.20
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731.91
732.22
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731.70
731.42
731.99
731.73
733.20
734.57



C-4TH-5TH-PARKINGLOT-EASTCURB

C-4TH-5TH-PARKINGLOT-WESTCURB

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

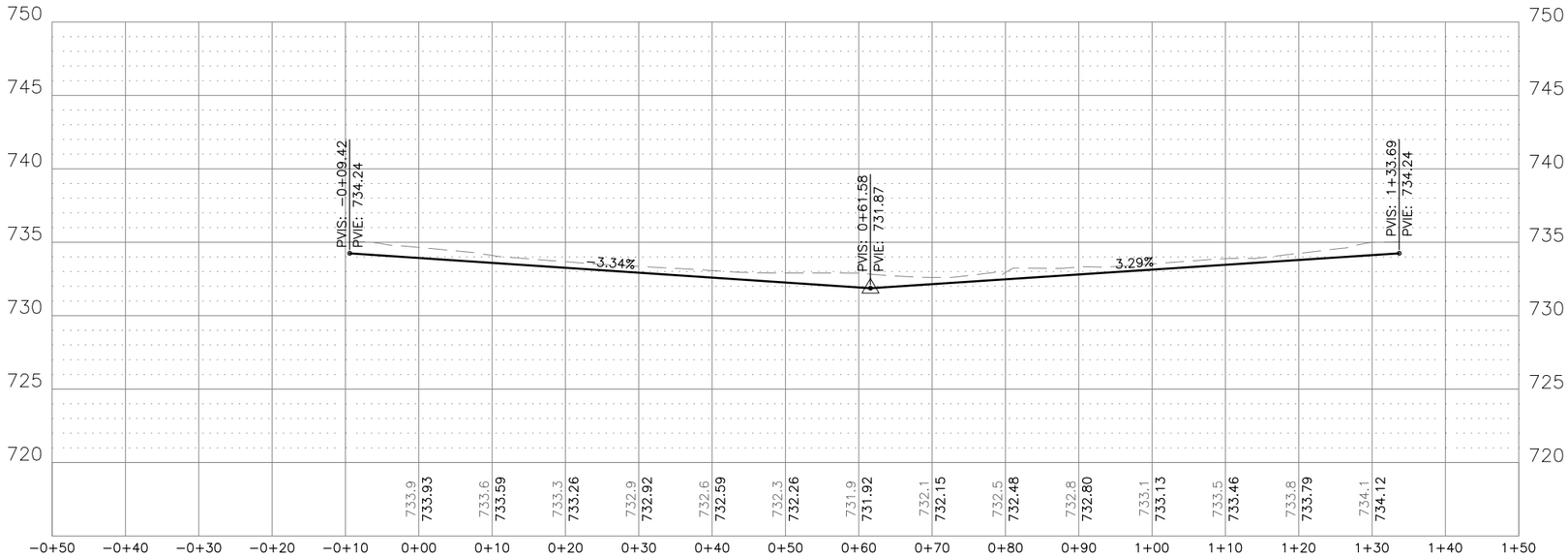
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

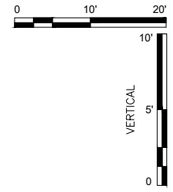
4TH-5TH PARKING LOT PROFILES

SHEET 189 OF 359

Plotted by: Date/Time: 3/6/2022 cstPk_10
Drawing path: C:\Cvx_sth_bh_ih\a01\dma80398\cp\123211_cp2-Parking\Lot.dwg
Xrefs: c123211_cp_parking-C3D, cd123211_arw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Pu



C-4TH-5TH-PARKINGLOT-NORTHCURB



Plotted By: JWebb 3/4/2022 - 10:25:11
Drawing: C:\Users\jwebb\Desktop\cd123211_ut_Private_cd123211_cp2-ParkingLot.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_erw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Public, cd123211_ut_Sanitary, cd123211_ut_Water, cp123211_cp_parking-C3D, cd123211_erw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Public, cd123211_ut_Sanitary, cd123211_ut_Water, cp123211_cp2-ParkingLot.dwg
Xrefs: C:\Users\jwebb\Desktop\cd123211_cp_parking-C3D, cd123211_erw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Public, cd123211_ut_Sanitary, cd123211_ut_Water, cp123211_cp2-Parkingl_ot.dwg
Xrefs: cd123211_ut_Private, cd123211_ut_Public, cd123211_ut_Sanitary, cd123211_ut_Water, cp123211_cp_parking-C3D, cd123211_erw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Public, cd123211_ut_Sanitary, cd123211_ut_Water, cp123211_cp2-Parkingl_ot.dwg

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LIC. NO. 52624 DATE 03-04-2022

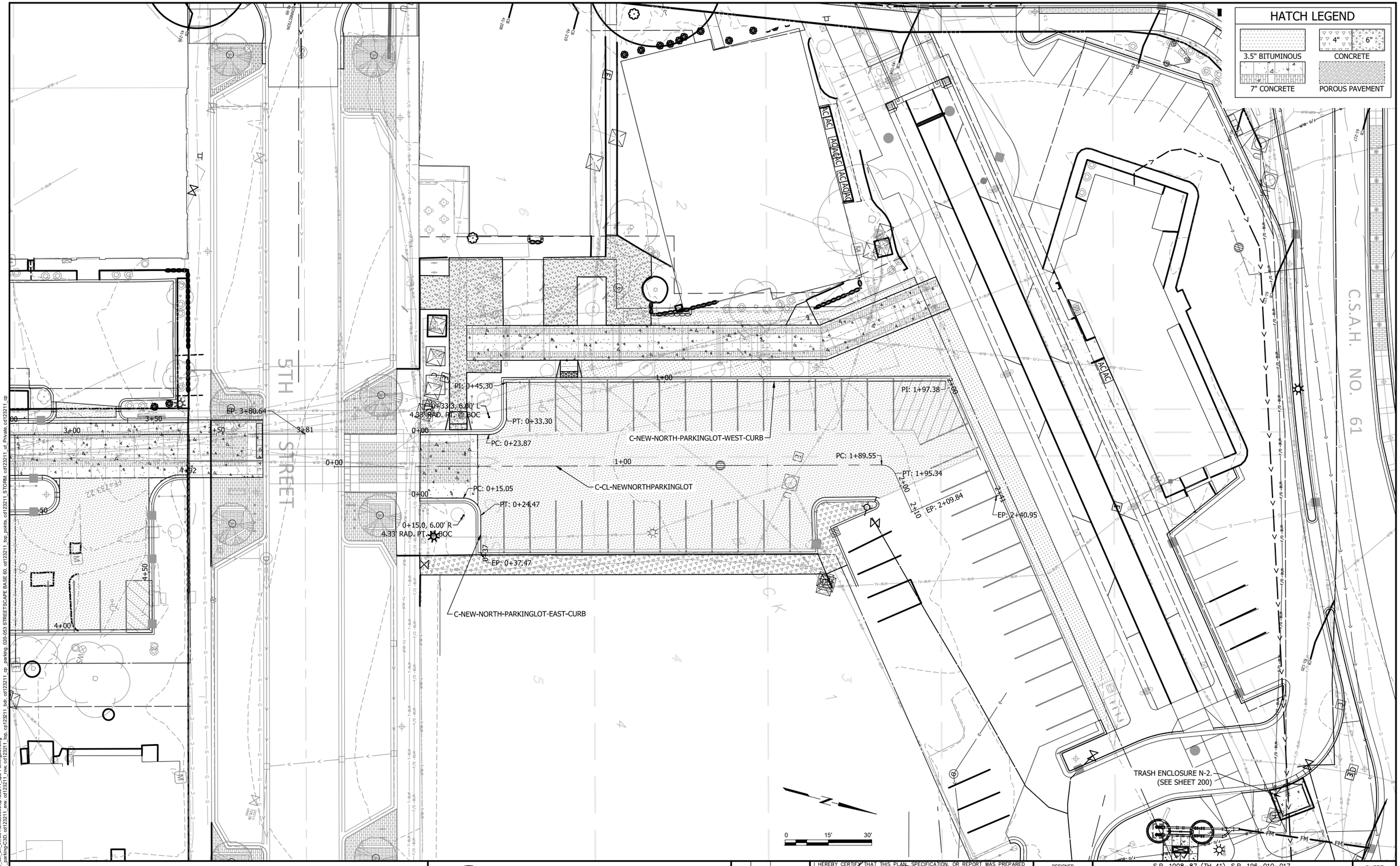
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

4TH-5TH PARKING LOT PROFILES

SHEET 190 OF 359



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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

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DRAWN	JLT/PJW
CHECKED	MRL

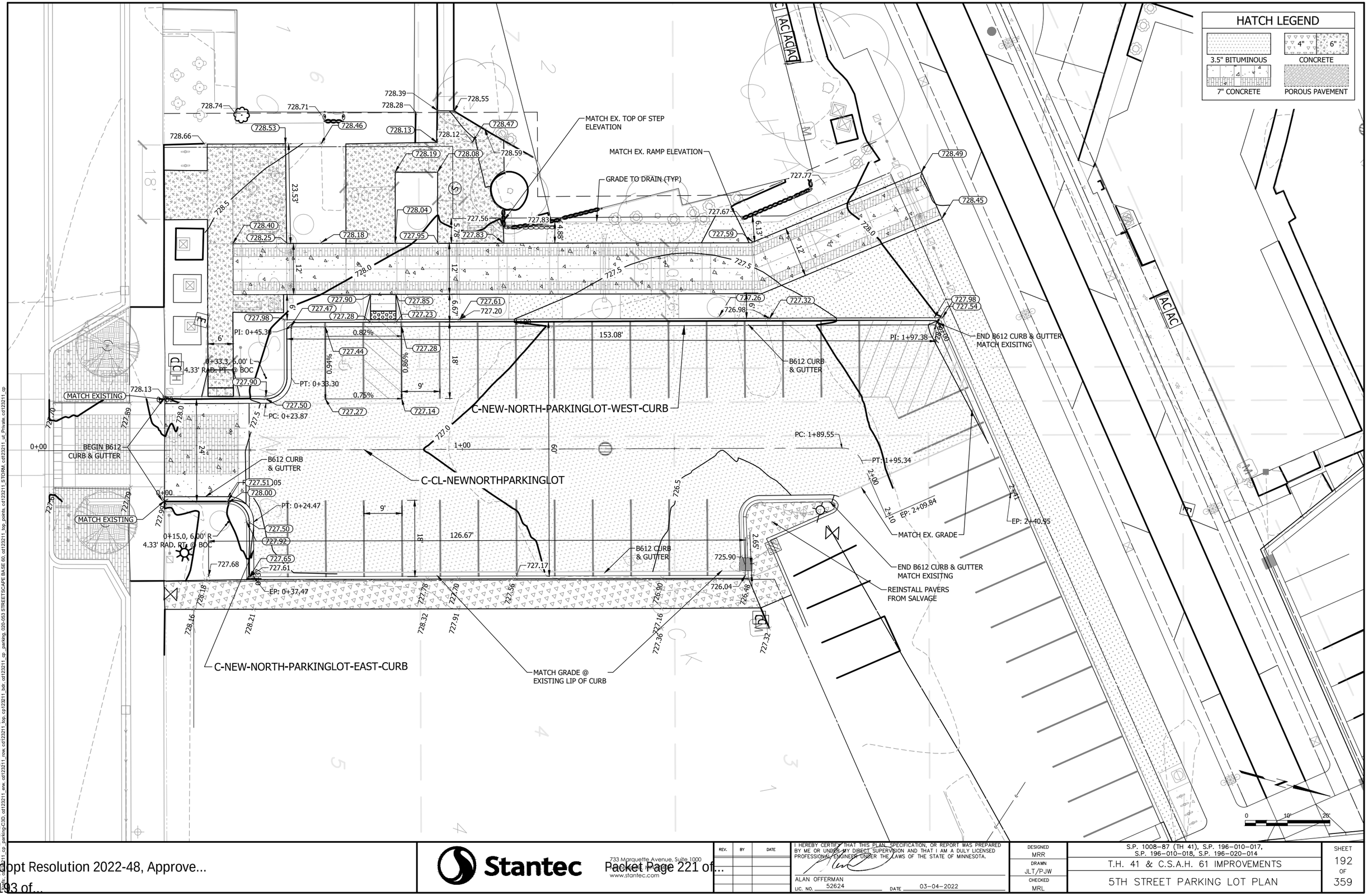
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

5TH STREET PARKING LOT PLAN

SHEET 191 OF 359

Date/Time: 3/16/2022, cs-PDL-12
Drawing: C:\Civil 3D Projects\Active\123211_cp2-Parking\123211_cp2-Parking_cd.dwg
Xrefs: 123211_sdp_bh_trfrail1dms80398-cp123211_cp2-Parking\cd123211_top_cp123211_bdr_cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Private, cd123211_row_cd123211_erw, cd123211_top, cp123211_cp_parking-C3D, cd123211_ut_Private, cd123211_ut_Private



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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

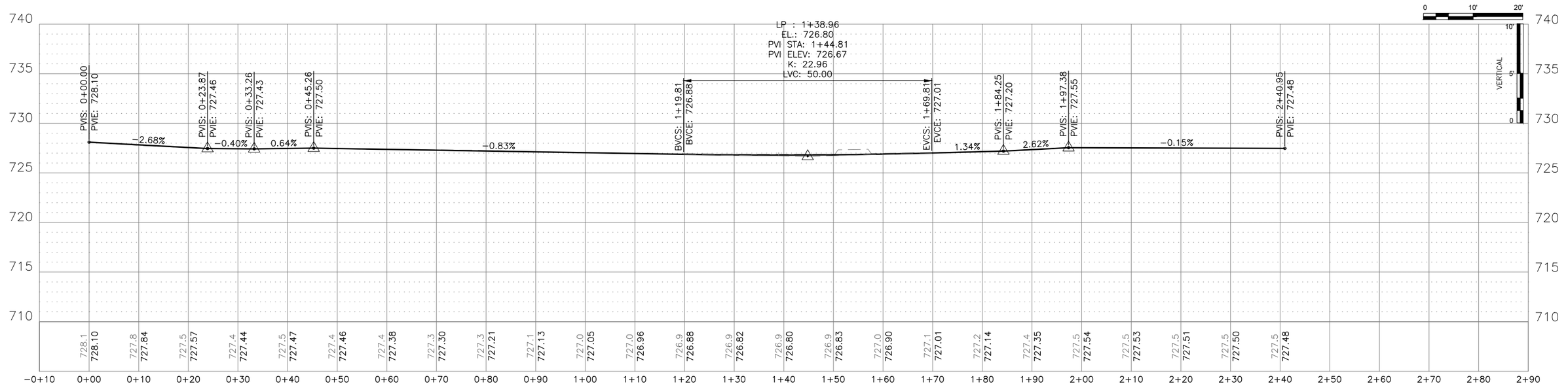
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

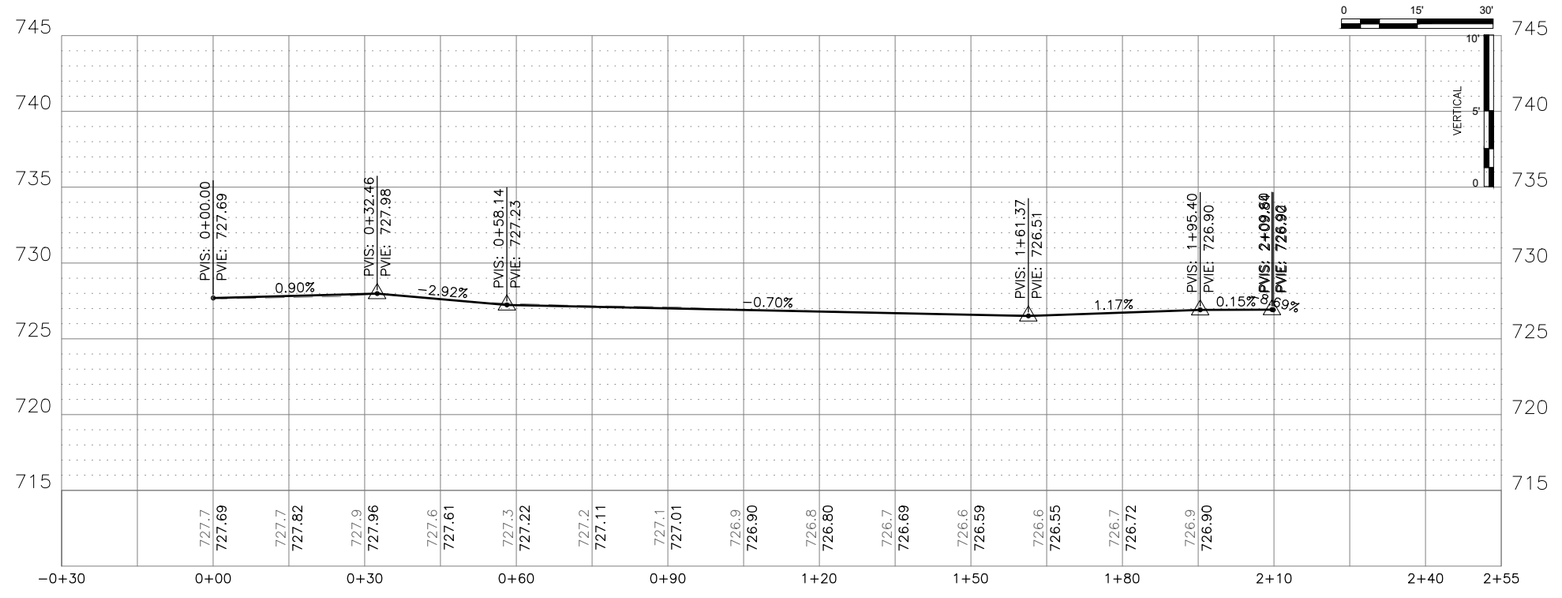
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

5TH STREET PARKING LOT PLAN

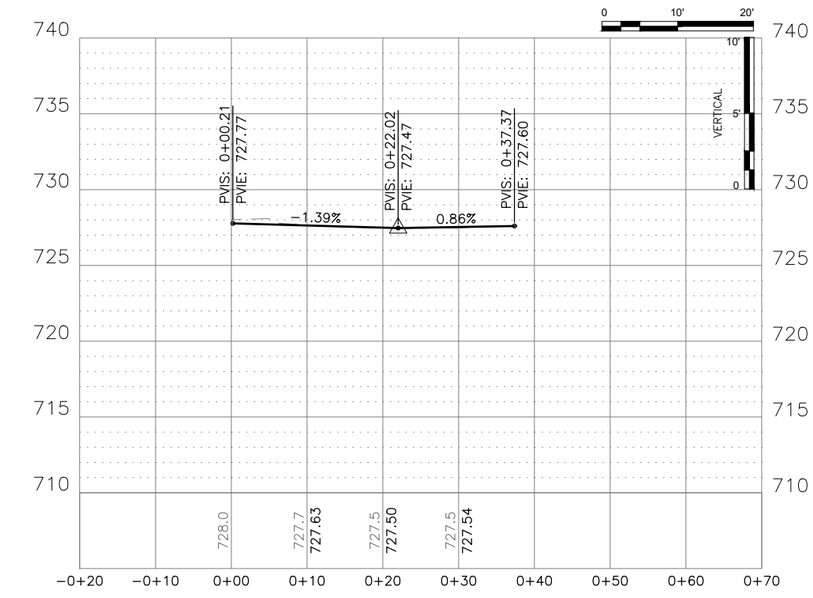
SHEET 192 OF 359



C-NEW-NORTH-PARKINGLOT-WEST-CURB



C-CL-NEWNORTHPARKINGLOT



C-NEW-NORTH-PARKINGLOT-EAST-CURB

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DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

5TH STREET PARKING LOT PROFILES

SHEET 193 OF 359

Plotted by: Date/Time: 3/16/2022 - cd2fc14
Drawing: C:\Users\dh_jtfa01\dms8039\cp123211_cp2-Parkingl.dwg
Xrefs: cd123211_cp_parking-C3D, cd123211_erw, cd123211_row, cd123211_top, cp123211_bdr, cd123211_cp_parking, 020-053 STREETSCAPE BASE 60, cd123211_top_points, cd123211_STORM, cd123211_ut_Private, cd123211_ut_Private, cd123211_ut_Private

SANITARY SEWER NOTES:

- ALL PVC PIPE SHALL BE SDR 26 UNLESS OTHERWISE NOTED.
- STATIONING IN PROFILE REFLECTS STREET STATIONING.
- ALL STRUCTURES REFERENCE STREET STATIONING.
- RISER HEIGHT NOTED ON THE DRAWINGS IS AN APPROXIMATION. CONTRACTOR TO VERIFY AND DOCUMENT FINAL RISER HEIGHT. MAINTAIN A SLOPE OF NO LESS THAN 2% ON SERVICE FROM CONNECTION POINT TO THE MAIN/RISER.

STORM SEWER NOTES:

- ALL RCP STORM SEWER IS CLASS 5 UNLESS OTHERWISE NOTED.
- ALL STRUCTURES REFERENCE STREET STATIONING.
- ALL NEW STRUCTURES WITH BUILDS GREATER THAN 4' SHALL HAVE STEPS LOCATED OVER THE DOWNSTREAM INVERT.
- PROVIDE A WATER-TIGHT CONNECTION WHERE NEW DRAINAGE STRUCTURES, CULVERTS, AND PERFORATED PIPE TIE INTO EXISTING STORM SEWER PIPES.
- PROVIDE TEMPORARY EROSION CONTROL MEASURES DURING AND AFTER STORM SEWER CONSTRUCTION TO PREVENT SEDIMENT AND CONTAMINANTS FROM ENTERING THE STORM SEWER.
- PRIOR TO STORM SEWER CONSTRUCTION THE CONTRACTOR SHALL VERIFY EXISTING PRIVATE UTILITY ELEVATIONS AND TIE-IN ELEVATIONS (INCIDENTAL).
- CATCH BASIN RIM ELEVATIONS ARE 0.17' BELOW ADJACENT GRADE. STATION AND OFFSET MEASURED TO FLOWLINE OF CATCH BASIN CASTINGS AND CENTER OF MANHOLE CASTING UNLESS NOTED OTHERWISE.

WATER MAIN NOTES:

- ALL PVC PIPE SHALL BE C-900 DR 18 UNLESS OTHERWISE NOTED.
- WATER MAIN SHALL HAVE 7.5' MINIMUM COVER. WATER MAIN OVER DEPTH IS INCIDENTAL.
- HYDRANT ELEVATIONS ARE TO TOP NUT.

SEWER AND WATER SERVICE NOTES:

- PLACE NEW SEWER SERVICES UP TO R/W UNLESS OTHERWISE DEFINED BY THE ENGINEER.
- ALL SANITARY SEWER SERVICES SHALL BE 4" PVC - SCH-40 UNLESS EXISTING SERVICE IS LARGER. MATCH SIZE OF EXISTING SERVICE PIPE
- CONTRACTOR TO VERIFY SEWER SERVICE RISERS HEIGHTS PRIOR TO INSULATION.
- ALL RESIDENTS WILL BE GIVEN THE OPPORTUNITY, IF ACCESSIBLE, TO REPLACE THEIR SEWER SERVICE BETWEEN PROPERTY LINE AND HOUSE. THE ENGINEER WILL NOTIFY THE CONTRACTOR OF THESE RESIDENCES DURING SANITARY SEWER INSTALLATION.
- PLACE TRACER WIRE WITH ALL SANITARY SEWER AND WATER SERVICE LINES PER DETAIL SER-1 AND SER-2A.
- WHEN FERNCO CONNECTION IS USED THE CONNECTION MUST BE FULLY ENCASED IN CONCRETE.
- ALL WATER SERVICES SHALL BE 1" SIDR 7 IPS PE UNLESS OTHERWISE NOTED.
- PLACE WATER SERVICES PER DETAIL SER-2A.
- FOLLOWING WATER SERVICE CONNECTION THERE WILL BE A VISUAL INSPECTION WITH WATER TURNED OFF AT THE HOUSE SIDE OF CURB STOP.
- INSULATE WATER SERVICES WITHIN 2' OF STORM SEWER PIPING.

TEMPORARY UTILITY NOTES:

- CONTRACTOR TO INSTALL AND MAINTAIN TEMPORARY WATER MAIN AND SANITARY SEWER SERVICE CONNECTIONS (GRAVITY OR BYPASS PUMPING) PER SPECIFICATIONS.

SUBSURFACE UTILITY INFORMATION:

THE SUBSURFACE UTILITY INFORMATION ON THIS PLAN IS SHOWN TO UTILITY QUALITY LEVEL D IN ACCORDANCE WITH LEGEND PROVIDED BELOW. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA. UTILITY DESIGNATIONS ARE SHOWN ON DRAWING G0.02.

UTILITY QUALITY LEVELS:
LEVEL D - INFORMATION COMES SOLELY FROM EXISTING UTILITY RECORDS.

LEVEL C - SURVEYING ABOVE GROUND UTILITY FACILITIES, SUCH AS MANHOLES, VALVE BOXES, ETC; AND CORRELATING THIS INFORMATION WITH EXISTING UTILITY RECORDS.

LEVEL B - THE USE OF SURFACE GEOPHYSICAL TECHNIQUES TO DETERMINE THE EXISTENCE AND HORIZONTAL POSITION OF UNDERGROUND UTILITIES.

LEVEL A - THE USE OF NONDESTRUCTIVE DIGGING EQUIPMENT AT HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL AND OTHER CHARACTERISTICS.

PRIVATE UTILITIES ARE SHOWN IN THE LOCATIONS PROVIDED BY THE OWNER PRIOR TO CONSTRUCTION.

SUMP LINE INFORMATION

- PLACE 6" PVC (SDR 26) LINE 1.5' BEHIND CURB. PLACE AT SAME GRADE AS STREET. PIPE SHOULD ENTER STRUCTURE 3' BELOW FINISH GRADE, BUT NEVER BELOW THE SPRINGLINE OF THE OUTLET PIPE IN THE STRUCTURE.
- WHERE HOMES HAVE NO EXISTING SUMP LINE TO CONNECT TO, PLACE ONE 4" PVC (SDR 26) PIPE RUN TO THE ROW LINE. AT ROW LINE, THE 4" INVERT SHOULD BE 18" TO 24" BELOW FINISH GRADE. GLUE ON PVC CAP AND PLACE A 12" TO 18" PIECE OF REBAR FOR LOCATING.
- AT EACH HOME WITH AN EXISTING SUMP LINE TO CONNECT TO OR A SUMP LINE THAT WILL BE CONNECTED IN THE NEAR FUTURE, A SUMP DRAIN BOX WILL BE PLACED ON THE ROW LINE WITH AN INVERT OF PIPE TO FINISH GRADE DEPTH OF 18" TO 24".
- IF ACCESSIBLE, CONTRACTOR WILL CONNECT THE EXISTING SUMP LINE TO THE NEW DRAIN BOX (CONNECTION INCIDENTAL).
- PLACE 6" PVC CLEAN OUT AT THE END OF EACH 6" SUMP LINE WITH METAL SCREW ON CAP FOR LOCATING.
- REVIEW HOUSES THAT WILL RECEIVE A DRAINAGE BOX WITH THE OWNER AND ENGINEER.
- DRILL HOLES IN THE BOTTOM OF ALL DRAINAGE BOXES AND BED UNDERSIDE OF BOX WITH A MINIMUM OF 6" COARSE FILTER AGGREGATE.

Plotted: 6/6/2022 - DEFI
Drawing: C:\Civil_3D_Th_nfm01\dms80398\sp123211_det.dwg
Xrefs: cd123211_tbl_bor, cd123211_cp_pavking, cd123211_cp, cd123211_ut_Private, cd123211_ut_top, cd123211_top, 020-083 STREETSCAPE BASE 60

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

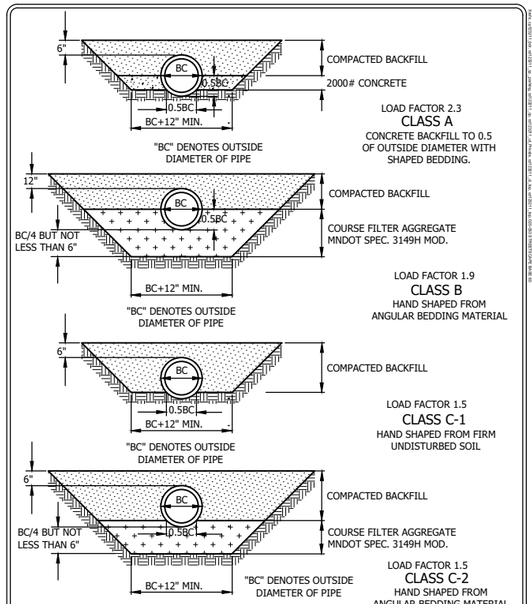
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DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

PUBLIC UTILITY DETAILS

SHEET 194 OF 359



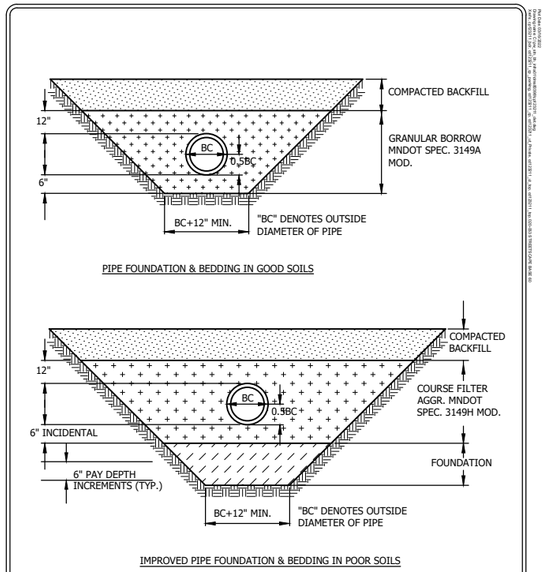
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BEDDING METHODS
FOR RCP OR DIP

CHASKA, MINNESOTA

LAST REVISION: MARCH 2001

PLATE NO. GEN-6



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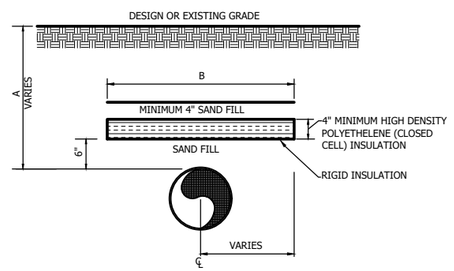
BEDDING METHODS FOR PVC

CHASKA, MINNESOTA

LAST REVISION: MARCH 2008

PLATE NO. GEN-7

NOTE: WATER MAIN BURIED LESS THAN 7.5' TO BE APPROVED BY OWNER



NOTE: PIPE SHALL BE CENTERED UNDER INSULATION UNLESS OTHERWISE SPECIFIED. STAGGER/ OFFSET JOINTS 2' MINIMUM BETWEEN SHEET LAYERS.

COVER OVER PIPE - A	WIDTH OF INSULATING BOARD - B
2'	11'
3'	9'
4'	7'
5'	5'
6'	3'

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INSULATION DETAIL

CHASKA, MINNESOTA

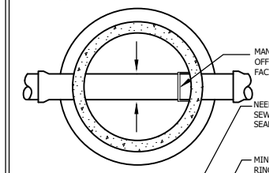
LAST REVISION: APRIL 2016

PLATE NO. GEN-8

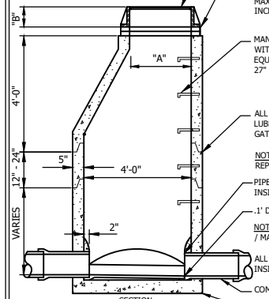
PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"



- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
- NEENAH COVER **R-1642-5001**, LETTERED "SANITARY SEWER" WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATION FOR CASTING NUMBER.
- MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. RINGS SHALL BE CONCRETE MORTAR WITH INFRASHIELD.
- MAXIMUM 20"ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.



- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL)
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS, RAMNECK, AND GATOR WRAP.
- NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.
- PIPE SHALL BE CUT 2" FROM INSIDE FACE OF WALL.
- .1' DROP ACROSS INVERTS MIN.
- NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.
- ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
- COMPACT TO TOP OF PIPE, TO FIRST JOINT.
- MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS) .

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SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

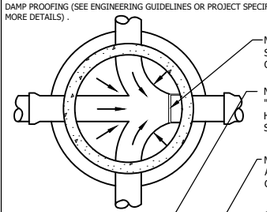
PLATE NO. SAN-1

PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.

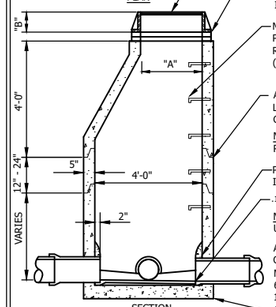
PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R16420245	27"	7"
R1755G	27"	7"

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS) .



- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
- NEENAH COVER **R1642-5001**, LETTERED "SANITARY SEWER" WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATIONS FOR CASTING NUMBER
- MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. RINGS SHALL BE CONCRETE MORTAR WITH INFRASHIELD.
- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING



- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL)
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS, RAMNECK, AND GATOR WRAP.
- NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.
- PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.
- .1' DROP ACROSS INVERTS (MIN.)
- NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.
- ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
- MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

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SANITARY SEWER JUNCTION MANHOLE

CHASKA, MINNESOTA

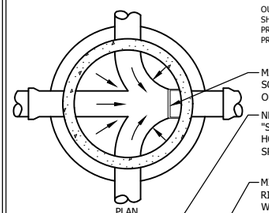
LAST REVISION: MARCH 2018

PLATE NO. SAN-2

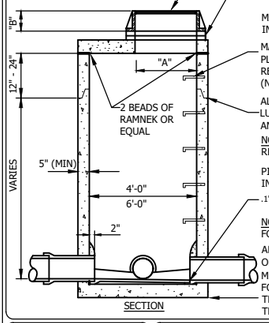
PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.
PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS) .



- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
- NEENAH COVER **R1642-5001**, LETTERED "SANITARY SEWER", WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATION FOR CASTING NUMBER.
- MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. RINGS SHALL BE CONCRETE MORTAR WITH INFRASHIELD.
- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.



- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL,16" ON CENTER. (NO STEPS ALLOWED IN TOP SLAB.)
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS, RAMNECK, AND GATOR WRAP.
- NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.
- PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.
- .1' DROP ACROSS INVERTS (MIN.)
- NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.
- ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
- MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

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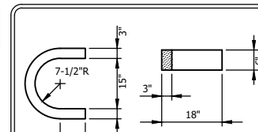
SANITARY SEWER JUNCTION MANHOLE WITH REINFORCED TOP SLAB

CHASKA, MINNESOTA

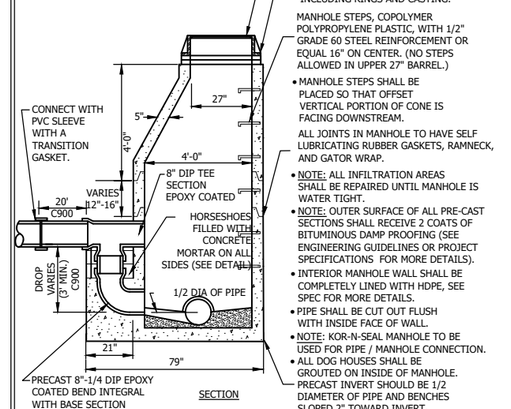
LAST REVISION: MARCH 2018

PLATE NO. SAN-3

FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"



- NEENAH COVER **R-1642-5001**, LETTERED "SANITARY SEWER", WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECS. FOR CASTING NUMBERS.
- MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. RINGS SHALL BE CONCRETE MORTAR WITH INFRASHIELD.
- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.



- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)
- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS, RAMNECK, AND GATOR WRAP.
- NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.
- NOTE: OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS).
- INTERIOR MANHOLE WALL SHALL BE COMPLETELY LINED WITH HDPE, SEE SPEC FOR MORE DETAILS.
- PIPE SHALL BE CUT OUT FLUSH WITH INSIDE FACE OF WALL.
- NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.
- ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
- PRECAST INVERT SHOULD BE 1/2 DIAMETER OF PIPE AND BENCHES SLOPED 2" TOWARD INVERT.

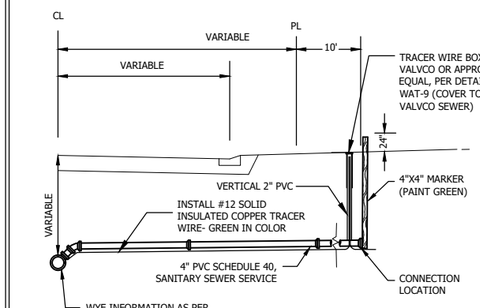
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SANITARY SEWER DROP INLET MANHOLE

CHASKA, MINNESOTA

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PLATE NO. SAN-4



NOTES:
1. SEWER SERVICES, 4" SCHEDULE 40 PVC SEWER PIPE
2. SLOPE - 1/4" PER FOOT MINIMUM.
3. PIPE JOINTS SHALL BE NON GASKETED, SOLVENT WELD TYPE.
4. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 3149.2B1 EXCEPT THE LAST TEN FEET WHERE COARSE FILTER AGGREGATE (3149.2H) AGGREGATE WILL BE REQUIRED.
5. BENDS OF 45° OR LESS SHALL BE USED WITHIN THE LAST 5' OF THE SERVICE IF THE DEPTH OF THE SERVICE WOULD EXCEED 10'.
6. NO SERVICE RISERS LESS THAN 3 FEET SHALL BE PERMITTED.
7. A SEPARATE TRACER WIRE WILL EXTEND FROM THE FINISH GRADE AT TRACER WIRE BOX AND FOLLOW SEWER SERVICE TO STRUCTURE FOUNDATION. TRACER WIRE FROM BOX TO FOUNDATION BY OTHERS.
8. FOR DEPTHS GREATER THAN 22', SERVICE PIPE SHALL BE C900 FROM MAIN TO CONNECTION, WITH TRANSITION FITTING FROM C900 TO SCH 40 INSTALLED AT CONNECTION LOCATION.

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SEWER SERVICE CONNECTION

CHASKA, MINNESOTA

LAST REVISION: APRIL 2016

PLATE NO. SER-1

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

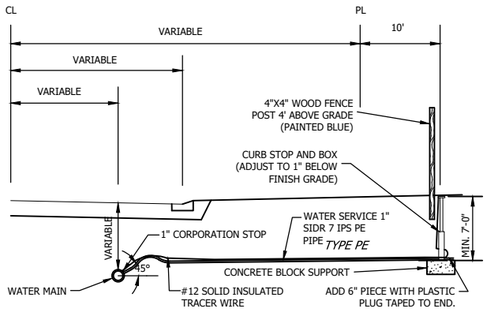
DESIGNED MRR
DRAWN JLT/PJW
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S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

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PUBLIC UTILITY DETAILS

SHEET 195 OF 359



PVC WATER MAIN
STAINLESS STEEL SERVICE SADDLE
SMITH-BLAIR 372 OR APPROVED EQUAL

NOTE: FOR SERVICES LARGER THAN 1" A TAPPING SLEEVE IS REQUIRED. ROCKWELL TYPE 230, FULL CIRCLE, WITH TAP THREADED FOR APPROPRIATE SIZE COPPER CORPORATION STOP. (OR EQUAL)

CORPORATION STOP	CURB STOP	CURB BOX
MUELLER B25009N	MUELLER B25222N	MUELLER H-10300-N OR H-10302-N
FORD FB1001-4Q	FORD B66444MQ	FORD EM2-75-56R-NL OR EM2-75-57R-NL
A.Y. MCDONALD 74704B	A.Y. MCDONALD 76104	A.Y. MCDONALD 75615 OR 75614

NOTES:
1. CURB BOX SHALL HAVE A STATIONARY ROD.
2. CURB BOX SHALL EXTEND FROM 78" TO 90".
3. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 3149.2B1 EXCEPT THE LAST TEN FEET WHERE COARSE FILTER AGGREGATE (3149.2H) WILL BE REQUIRED.
4. IF CURB STOP IS IN DRIVEWAY, CONTRACTOR MUST INSTALL A FORD A-1 CASTING, MARKED WITH "WATER" ON LID.
5. CURB BOX LID SHALL BE MUELLER #89375 "TW" OR EQUAL.
6. ALL BRASS FITTINGS SHALL BE "NO LEAD BRASS".
7. PIPE INSERT STIFFENERS REQUIRED FOR FITTING CONNECTIONS.
8. HDPE SERVICE PIPE SHALL BE MANUFACTURED BY ENDOPURE OR BLUE ULTRA PIPE.

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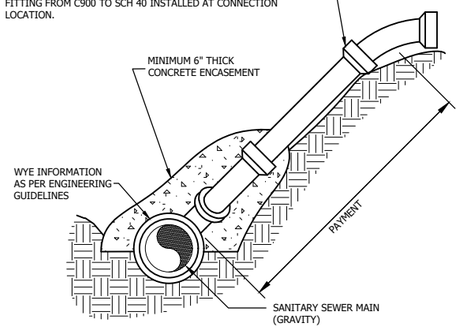
WATER SERVICE CONNECTION
HDPE PIPE
CHASKA, MINNESOTA

LAST REVISION: MARCH 2016

PLATE NO. SER-2A

PVC PIPE
BED AND ENCASE IN SELECT GRANULAR, TYPICAL PVC APPLICATION.

SERVICE RISERS FOR SEWER MAINS LESS THAN 22' SHALL BE SCHEDULE 40 PVC (SOLVENT WELD JOINTS).
FOR DEPTHS GREATER THAN 22', SERVICE PIPE SHALL BE C900 FROM MAIN TO CONNECTION WITH TRANSITION FITTING FROM C900 TO SCH 40 INSTALLED AT CONNECTION LOCATION.



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SERVICE RISER

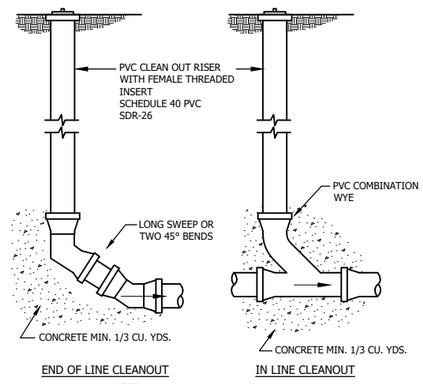
CHASKA, MINNESOTA

LAST REVISION: MARCH 2016

PLATE NO. SER-3

NOTE:
CLEANOUT CAP SHALL BE THREADED MALLEABLE IRON (GALVANIZED)

NOTE:
ENCLOSE LONG SWEEP BEND OR COMBINATION WYE IN CONCRETE AS SHOWN.



END OF LINE CLEANOUT

IN LINE CLEANOUT

NOTE:
CLEANOUT IS REQUIRED FOR EVERY 100 FEET OF SERVICE LENGTH.

NOTE:
1. IF CLEAN OUT IS IN DRIVEWAY, CONTRACTOR MUST INSTALL FORD A-1 CASTING, MARKED WITH "SEWER" ON LID.
2. IF VALVE BOX IS IN ROADWAY, CONTRACTOR MUST INSTALL TOP SECTION OF A VALVE BOX WITH LID MARKED "SEWER".

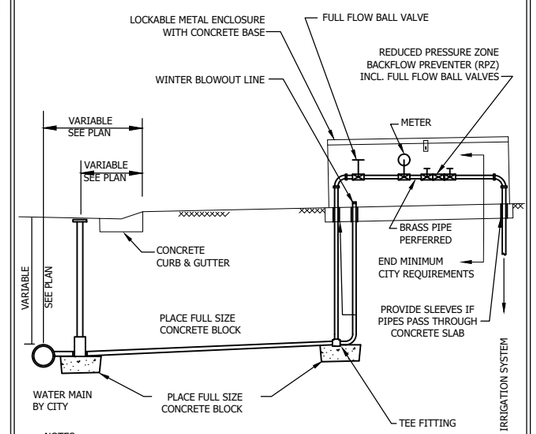
Stantec
2335 Highway 36 W
St. Paul, MN 55113
www.stantec.com

SERVICE LINE CLEANOUTS

CHASKA, MINNESOTA

LAST REVISION: MARCH 2001

PLATE NO. SER-4



NOTES:
1. CITY WATER SERVICE & PLUMBING PERMITS REQUIRED FOR WORK BY PRIVATE CONTRACTORS.
2. ANNUAL TESTING OF RPZ REQUIRED
3. REQUIRED EQUIPMENT MUST BE ENCLOSED AND SUPPORTED.
4. ENCLOSURE MUST BE APPROVED BY CITY WATER DEPT. ENCLOSURE MUST BE LOCKED WITH A HEAVY DUTY PADLOCK. (SUPPLIED BY CITY)
5. SLEEVES FOR PIPES IN CONCRETE SLABS SHALL BE 4" DIAMETER PVC OR SIMILAR.
6. IF A 1-1/2" IRRIGATION SERVICE IS USED THEN THE CURBSTOP MUST BE LOCATED IN THE GREEN AREA.

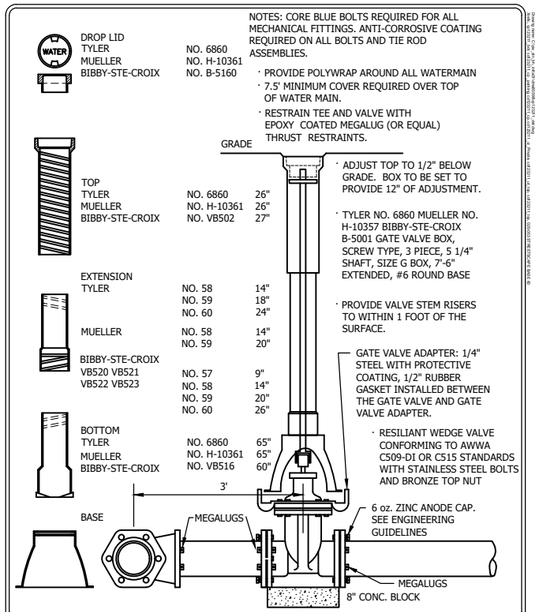
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IRRIGATION SERVICE
BY PRIVATE CONTRACTOR

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SER-6



NOTES: CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

- PROVIDE POLYWRAP AROUND ALL WATERMAIN
- 7.5' MINIMUM COVER REQUIRED OVER TOP OF WATER MAIN.
- RESTRAIN TEE AND VALVE WITH EPOXY COATED MEGALUG (OR EQUAL) THRUST RESTRAINTS.
- ADJUST TOP TO 1/2" BELOW GRADE. BOX TO BE SET TO PROVIDE 12" OF ADJUSTMENT.
- TYLER NO. 6860 MUELLER NO. H-10357 BIBBY-STE-CROIX B-5001 GATE VALVE BOX, SCREW TYPE, 3 PIECE, 5 1/4" SHAFT, SIZE G BOX, 7'-6" EXTENDED, #6 ROUND BASE
- PROVIDE VALVE STEM RISERS TO WITHIN 1 FOOT OF THE SURFACE.
- GATE VALVE ADAPTER: 1/4" STEEL WITH PROTECTIVE COATING, 1/2" RUBBER GASKET INSTALLED BETWEEN THE GATE VALVE AND GATE VALVE ADAPTER.
- RESILIANT WEDGE VALVE CONFORMING TO AWWA C509-DI OR C515 STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT

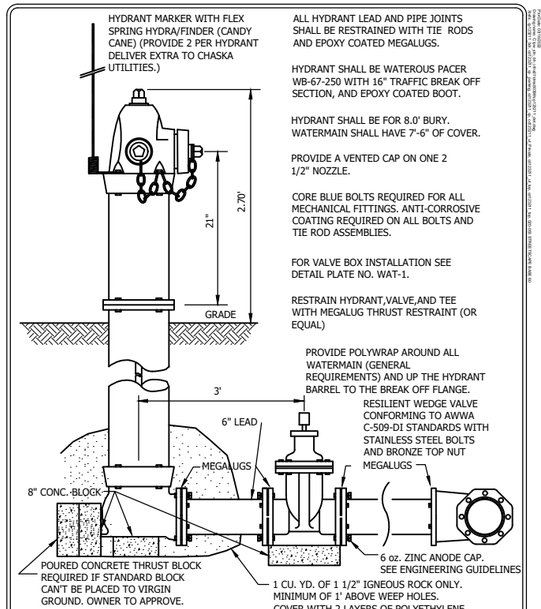
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GATE VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-1



ALL HYDRANT LEAD AND PIPE JOINTS SHALL BE RESTRAINED WITH TIE RODS AND EPOXY COATED MEGALUGS.

HYDRANT SHALL BE WATEROUS PACER WB-67-250 WITH 16" TRAFFIC BREAK OFF SECTION, AND EPOXY COATED BOOT.

HYDRANT SHALL BE FOR 8.0' BURY. WATERMAIN SHALL HAVE 7'-6" OF COVER.

PROVIDE A VENTED CAP ON ONE 2 1/2" NOZZLE.

CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

FOR VALVE BOX INSTALLATION SEE DETAIL PLATE NO. WAT-1.

RESTRAIN HYDRANT,VALVE,AND TEE WITH MEGALUG THRUST RESTRAINT (OR EQUAL)

PROVIDE POLYWRAP AROUND ALL WATERMAIN (GENERAL REQUIREMENTS) AND UP THE HYDRANT BARREL TO THE BREAK OFF FLANGE.

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WATEROUS PACER HYDRANT AND VALVE INSTALLATION

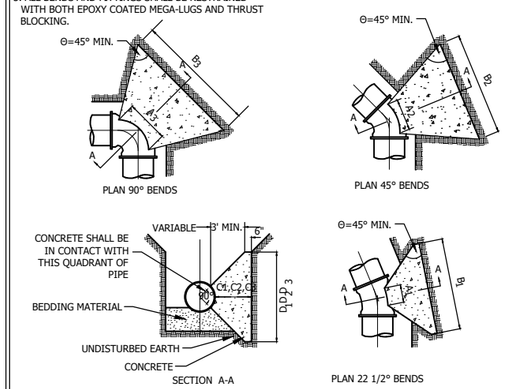
CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-2

NOTES:
1. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POURED AGAINST FIRM UNDISTURBED EARTH.
2. DIMENSION C1,C2,C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE Θ EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1,A2,A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS.
4. PROVIDE POLYETHYLENE WRAP AROUND ALL WATERMAIN.
5. ALL BENDS AND FITTINGS SHALL BE RESTRAINED WITH BOTH EPOXY COATED MEGA-LUGS AND THRUST BLOCKING.

BUTTRESS DIMENSIONS						
PIPE SIZE	22 1/2° BEND		45° BEND		90° BEND	
	B_1	D_1	B_2	D_2	B_3	D_3
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-6"	2'-8"	2'-0"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16"	3'-0"	2'-0"	3'-10"	3'-0"	6'-2"	3'-6"
20"	3'-6"	2'-8"	5'-6'	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"
30"	-	-	9'-3"	6'-0"	17'-0"	6'-0"



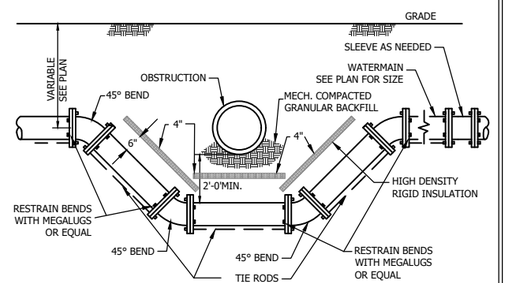
Stantec
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St. Paul, MN 55113
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CONCRETE THRUST BLOCKING

CHASKA, MINNESOTA

LAST REVISION: APRIL 2005

PLATE NO. WAT-4



1. USE EPOXY COATED MEGALUG THRUST RESTRAINTS AND COATED TIE RODS ON ALL JOINTS AND FITTINGS. CORE BLUE BOLTS REQUIRED ON ALL MECHANICAL JOINTS.
2. RESTRAIN A MINIMUM OF TWO PIPE JOINTS (40 LF) LEFT AND RIGHT OF THE LOWERING.
3. SEE PLATE NO. GEN-11 TO DETERMINE THE WIDTH OF THE INSULATING BOARD REQUIRED
4. SEE PLATE NO. WAT-4 TO DETERMINE THE REQUIRED CONCRETE THRUST BLOCKING.
5. ANTI CORROSIVE COATING REQUIRED ON ALL BOLT AND RESTRAINT ASSEMBLIES AND WELDS.
6. SACRAFICIAL ZINC ANODE CAPS ON EACH SIDE OF WATER FITTINGS. SEE ENGINEERING GUIDELINES.
7. INSTALL POLYETHELENE FILM WRAP AROUND ALL PIPE INCLUDED IN THE LOWERING.

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WATER MAIN LOWERING
WITH INSULATION DETAIL

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-6

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Minneapolis, MN 55402
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REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED MRR
DRAWN JLT/PJW
CHECKED MRL

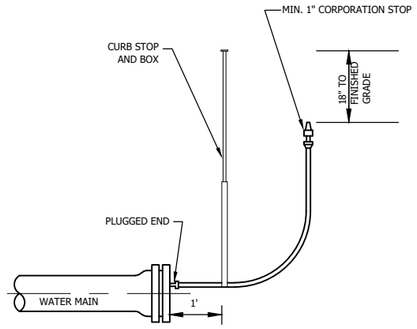
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

PUBLIC UTILITY DETAILS

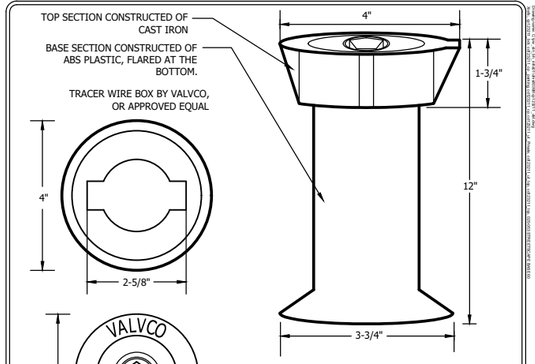
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AFTER MEETING TEST REQUIREMENTS THE AIR BLEED LINE SHALL BE DISCONNECTED AT THE PLUG WITH NO ADDITIONAL COMPENSATION.

Stantec	TYPICAL AIR BLEED INSTALLATION CHASKA, MINNESOTA	LAST REVISION: MARCH 2008 PLATE NO. WAT-8



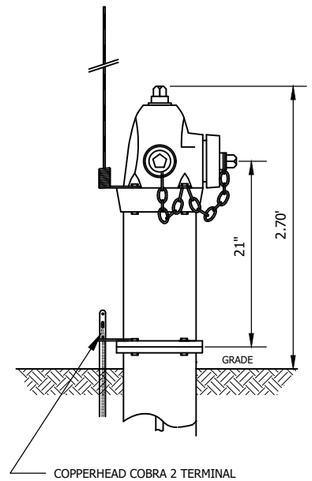
LID SHALL BE ABLE TO LOCK AND UNLOCK WITH A STANDARD PENTAGON HEAD 1 /2" KEY WRENCH.

ACCESS BOX LID SHALL BE MADE OF CAST IRON AND INSTALLED TO GRADE.

#12 SOLID INSULATED TRACER WIRE SHALL BE STRIPPED AND ATTACHED TO STAINLESS STEEL SCREWS MOUTED TO UNDERSIDE OF LID.

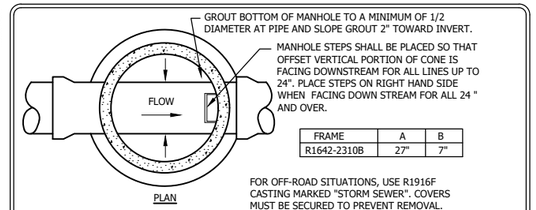
SUFFICIENT SLACK SHALL BE LEFT IN WIRE SO COVER MAY BE LIFTED WITH WIRE STILL INTACT.

Stantec	DIP TO C900 WATERMAIN TRANSITION FOR TRACER WIRE CHASKA, MINNESOTA	LAST REVISION: MAY 2016 PLATE NO. WAT-9



COPPERHEAD COBRA 2 TERMINAL ACCESS POINT WITH FLANGE (BLUE) WITH 2' LONG 1" ϕ CONDUIT

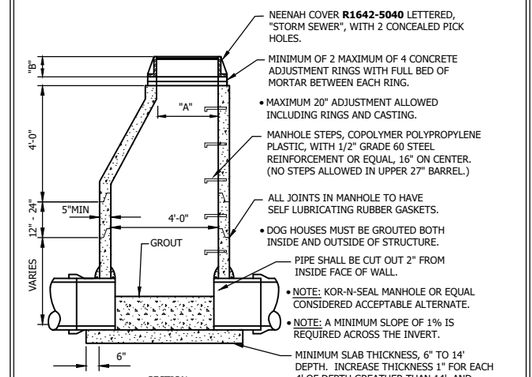
Stantec	TRACER WIRE FOR PVC WATER MAIN CHASKA, MN	LAST REVISION: JANUARY 2022 PLATE NO. WAT-10



MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM FOR ALL LINES UP TO 24". PLACE STEPS ON RIGHT HAND SIDE WHEN FACING DOWN STREAM FOR ALL 24 " AND OVER.

FRAME	A	B
R1642-2310B	27"	7"

FOR OFF-ROAD SITUATIONS, USE R1916F CASTING MARKED "STORM SEWER". COVERS MUST BE SECURED TO PREVENT REMOVAL.



NEENAH COVER **R1642-5040** LETTERED, "STORM SEWER", WITH 2 CONCEALED PICK HOLES.

MINIMUM OF 2 MAXIMUM OF 4 CONCRETE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING.

- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS.

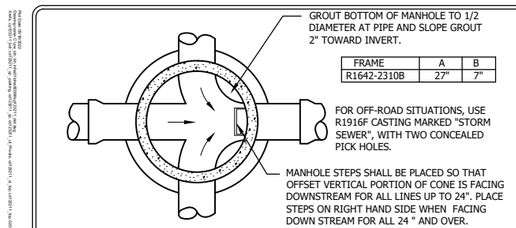
- DOG HOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE OF STRUCTURE.

PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.

- NOTE: KOR-N-SEAL MANHOLE OR EQUAL CONSIDERED ACCEPTABLE ALTERNATE.
- NOTE: A MINIMUM SLOPE OF 1% IS REQUIRED ACROSS THE INVERT.

MINIMUM SLAB THICKNESS, 6" TO 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATHER THAN 14', AND REINFORCE WITH PER MNDOT STD 4011

Stantec	STORM SEWER MANHOLE CHASKA, MINNESOTA	LAST REVISION: MARCH 2018 PLATE NO. STO-1



FRAME	A	B
R1642-2310B	27"	7"

FOR OFF-ROAD SITUATIONS, USE R1916F CASTING MARKED "STORM SEWER", WITH TWO CONCEALED PICK HOLES.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM FOR ALL LINES UP TO 24". PLACE STEPS ON RIGHT HAND SIDE WHEN FACING DOWN STREAM FOR ALL 24 " AND OVER.

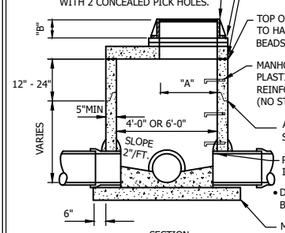
MINIMUM OF 2 MAXIMUM OF 4 CONCRETE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING.

- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

NEENAH COVER **R1642-5040** OR EQUAL, LETTERED, "STORM SEWER", WITH 2 CONCEALED PICK HOLES.

6" PRECAST REINFORCED CONCRETE MANHOLE SLAB WITH MINIMUM #4 BARS AT 5" O.C. EACH WAY AND 2-#4 BARS AT ALL SIDES OF OPENING. FOR 6' DIA. MANHOLE, A MINIMUM 8" PRECAST SLAB IS REQUIRED.

TOP OF BARREL SECTION BELOW TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.



MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEP ALLOWED IN UPPER 27" BARREL.)

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS.

PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.

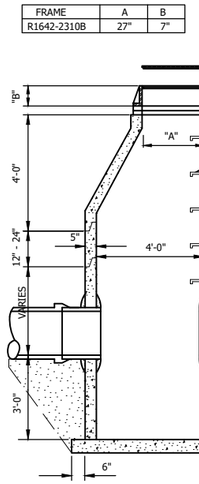
- DOGHOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE.

MINIMUM SLAB THICKNESS, 6" TO 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATHER THAN 14', AND REINFORCE WITH PER MNDOT STD 4011

NOTE: A MINIMUM SLOPE OF 1% IS REQUIRED ACROSS THE INVERT.

Stantec	STORM SEWER JUNCTION MANHOLE WITH REINFORCED TOP SLAB CHASKA, MINNESOTA	LAST REVISION: MARCH 2018 PLATE NO. STO-3

FRAME	A	B
R1642-2310B	27"	7"



NEENAH COVER **R1642-5040** OR EQUAL LETTERED, "STORM SEWER", WITH 2 CONCEALED PICK HOLES.

MINIMUM OF 2 MAXIMUM OF 4 CONCRETE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING.

MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEP ALLOWED IN UPPER 27" BARREL.)

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS.

PIPE SHALL BE CUT OUT 2" FROM FACE OF WALL.

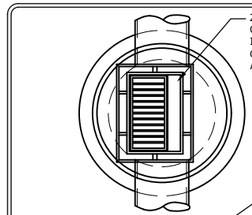
MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM FOR ALL LINES UP TO 24"ϕ. PLACE STEPS ON RIGHT HAND SIDE WHEN FACING DOWN STREAM FOR ALL LINES 24"ϕ AND OVER.

SELECT GRANULAR BACKFILL MATERIAL

WEEP HOLES TO BE PROVIDED AT ENGINEER DISCRETION

MINIMUM SLAB THICKNESS, 6" TO 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATHER THAN 14', AND REINFORCE WITH PER MNDOT STD 4011

Stantec	PERFORATED SUMP MANHOLE CHASKA, MINNESOTA	LAST REVISION: MARCH 2018 PLATE NO. STO-4

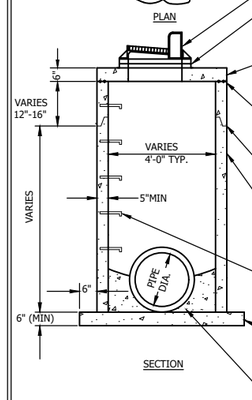


24"X36" SLAB OPENING FOR NEENAH R3067V OR ESS. BROS. 330 HIGH CAPACITY OR EQUAL. INSTALL R3290L FOR DRIVEWAYS AND VALLEY GUTTERS. INSTALL R3290VB BI-DIRECTIOAL AT LOW POINTS. (VANE GRATE SHOWN)

DIMENSION FROM BACK OF CURB TO CENTER OF PIPE.
4' DIA. MH - 9" IN FROM BACK OF CURB
5' DIA. MH - 3" IN FROM BACK OF CURB
6' DIA. MH - 3" BEHIND BACK OF CURB
7' DIA. MH - 9" BEHIND BACK OF CURB
8' DIA. MH - 15" BEHIND BACK OF CURB

MORTAR BOLT HOLES IN BACK OF FRAME.

MINIMUM OF 2 MAXIMUM OF 4 CONCRETE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING.



6" PRECAST REINFORCED CONCRETE SLAB. FOR 6' DIA. MANHOLE, AN 8" PRECAST SLAB IS REQUIRED.

TOP OF BARREL SECTION UNDER TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS.

PRECAST CONCRETE SECTION

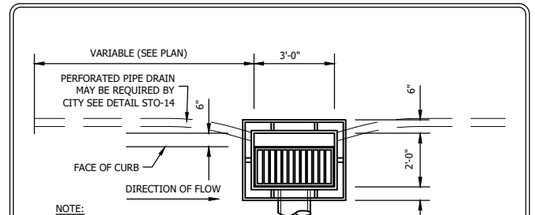
DOGHOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND INSIDE.

MANHOLE STEPS SHALL BE PLACED BELOW THE DOWNSTREAM CORNER OF THE OPENING NEAREST THE STREET.

MINIMUM SLAB THICKNESS, 6" TO 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATHER THAN 14', AND REINFORCE WITH PER MNDOT STD 4011

GROUT BOTTOM

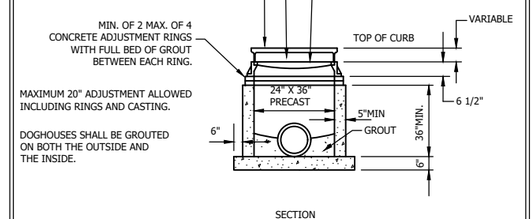
Stantec	TYPE II CATCHBASIN MANHOLE CHASKA, MINNESOTA	LAST REVISION: MARCH 2018 PLATE NO. STO-5



CATCHBASIN CASTING NEENAH R3067V OR ESS.BRO.330 HIGH CAPACITY OR EQUAL WITH VANE GRATE 3" RADIUS CURB BOX. INSTALL R3290L CASTING IN DRIVEWAYS AND VALLEY GUTTERS. INSTALL R3290VB BI-DIRECTIONAL AT LOW POINTS.

MORTAR BOLT HOLES IN BACK OF FRAME.

GRATE IN GUTTERLINE TO BE 2" BELOW GUTTER GRADE. 10' TRANSITION EACH SIDE OF CATCH BASIN.



MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

DOGHOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND THE INSIDE.

Stantec	TYPE II CATCHBASIN CHASKA, MINNESOTA	LAST REVISION: MARCH 2018 PLATE NO. STO-6

733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

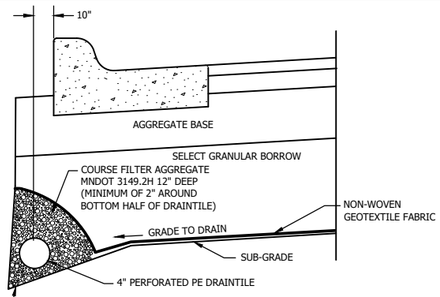
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S.P. 196-010-018, S.P. 196-020-014

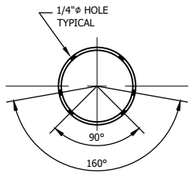
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

PUBLIC UTILITY DETAILS

SHEET 197 OF 359

Plotted: 04/06/2022 - 8:47 AM
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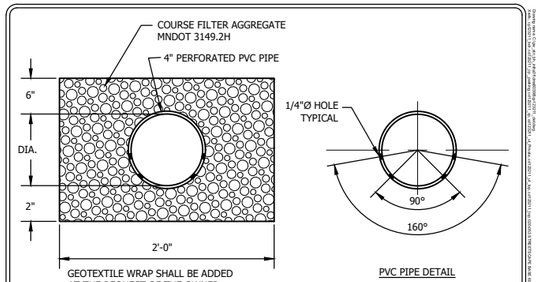


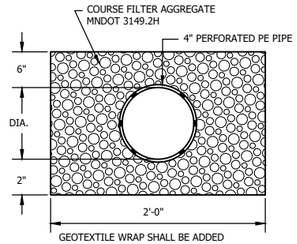
PE PIPE DETAIL

NOTE:
PE PIPE IS ACCEPTABLE ONLY
WITH PRIOR ENGINEER APPROVAL
OR SPECIFACTION.

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2335 Highway 36 W
St. Paul, MN 55113
www.stantec.com

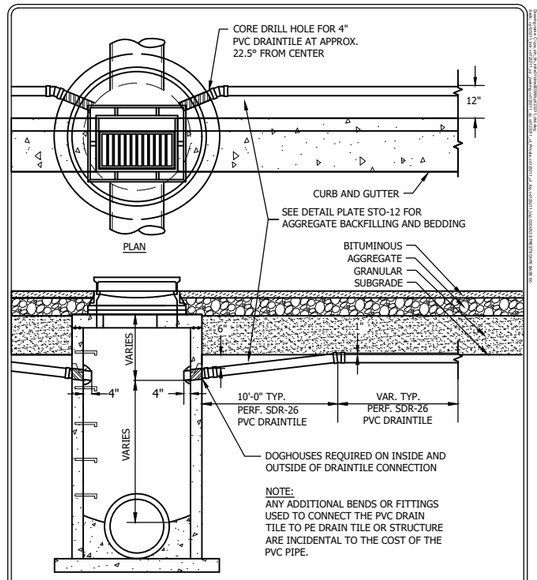
PERFORATED PE DRAINTILE PIPE BELOW CONCRETE CURB CHASKA, MINNESOTA	LAST REVISION: NOV. 2014	
	PLATE NO. STO-12a	





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www.stantec.com

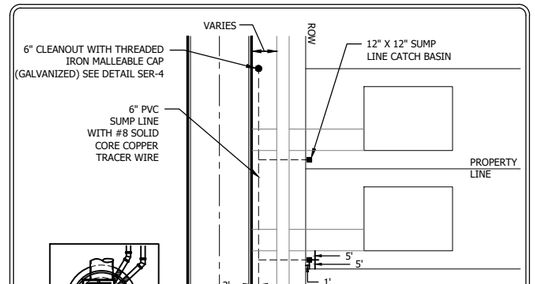
PERFORATED PIPE TRENCH DETAIL CHASKA, MINNESOTA	LAST REVISION: NOV. 2014	
	PLATE NO. STO-13	



NOTE:
ANY ADDITIONAL BENDS OR FITTINGS
USED TO CONNECT THE PVC DRAIN
TILE TO PE DRAIN TILE OR STRUCTURE
ARE INCIDENTAL TO THE COST OF THE
PVC PIPE.

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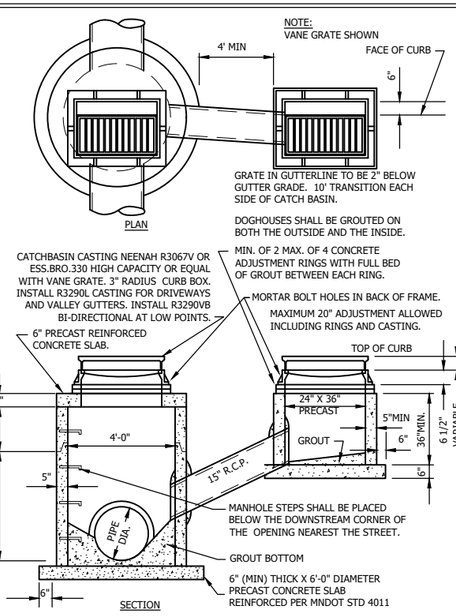
DRAINTILE INSTALLATION INTO CATCHBASIN MANHOLE CHASKA, MINNESOTA	LAST REVISION: APRIL 2016	
	PLATE NO. STO-14	



NOTES:
1. 6" PVC SUMP LINE TO BE INSTALLED 2' BELOW GRADE AND TO BE CORE DRILLED INTO NEAREST DOWNSTREAM CATCH BASIN.
2. EXTEND 4" PVC SUMP SERVICE FROM MAIN TO RIGHT OF WAY.
3. ALTERNATE CONFIGURATIONS ONLY WITH THE APPROVAL OF OWNER.
4. SEE ENGINEERING GUIDELINES OR SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. MAXIMUM SUMP LINE LENGTH 300'. IF LONGER SUMP LINE IS NECESSARY, INTERMEDIATE CLEANOUTS WILL BE REQUIRED EVERY 200'.
6. INSTALL 4" X 4" POST ADJACENT TO EACH SUMP CATCH BASIN FOR PROTECTION DURING CONSTRUCTION.
7. CLEAN OUT TO BE PLACED ON PROPERTY LINE AT END OF LAST SERVICE LINE. IF SERVICE FALLS IN DRIVEWAY THE MAINLINE WILL BE EXTENDED BEYOND DRIVEWAY/ALLEY TO ENSURE THE CLEANOUT IS IN GREEN SPACE.
8. A SEPARATE TRACER WIRE WILL EXTEND FROM THE FINISHED GRADE CLEANOUT LOCATION WITH TRACER WIRE BOX AND FOLLOW THE SUMP LINE TO THE STRUCTURE LOCATION.

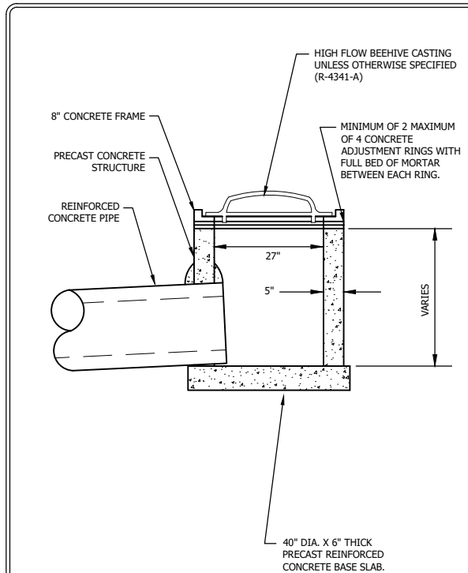
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PVC SUMP LINE BEHIND CURB CHASKA, MINNESOTA	LAST REVISION: MAY 2016	
	PLATE NO. STO-15	



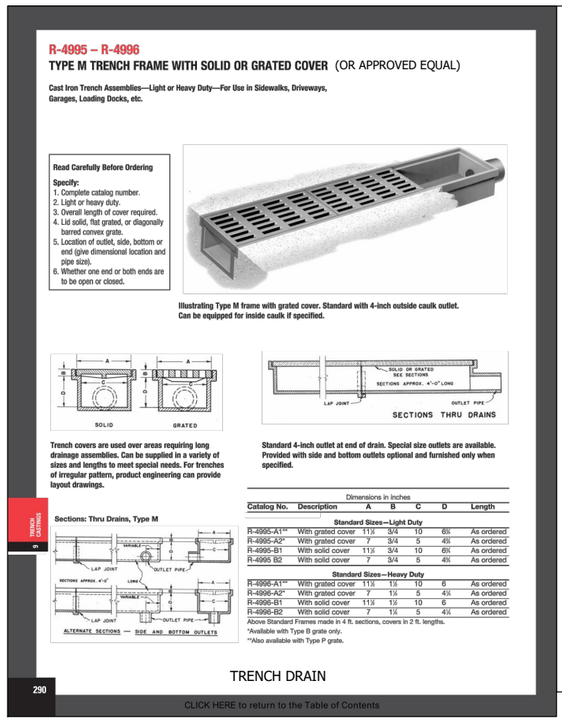
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DOUBLE CATCHBASIN TYPE II CBMH WITH TYPE II CB CHASKA, MINNESOTA	LAST REVISION: MARCH 2018	
	PLATE NO. STO-7	



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PRECAST 27" SHALLOW DEPTH BEEHIVE CHASKA, MINNESOTA	LAST REVISION: MARCH 2018	
	PLATE NO. STO-9	



R-4995 – R-4996
TYPE M TRENCH FRAME WITH SOLID OR GRATED COVER (OR APPROVED EQUAL)

Cast Iron Trench Assemblies—Light or Heavy Duty—For Use in Sidewalks, Driveways, Garages, Loading Docks, etc.

Read Carefully Before Ordering

Specify:
1. Complete catalog number.
2. Light or heavy duty.
3. Overall length of cover required.
4. Lid solid, flat grated, or diagonally barred convex grate.
5. Location of outlet, side, bottom or end (give dimensional location and pipe size).
6. Whether one end or both ends are to be open or closed.

Illustrating Type M frame with grated cover. Standard with 4-inch outside caulk outlet. Can be equipped for inside caulk if specified.

SOLID GRATED

SECTIONS THRU DRAINS

Trench covers are used over areas requiring long drainage assemblies. Can be supplied in a variety of sizes and lengths to meet special needs. For trenches of irregular pattern, product engineering can provide layout drawings.

Standard 4-inch outlet at end of drain. Special size outlets are available. Provided with side and bottom outlets optional and furnished only when specified.

Sections: Thru Drains, Type M

ALTERNATE SECTIONS — SIDE AND BOTTOM OUTLETS

Dimensions in inches

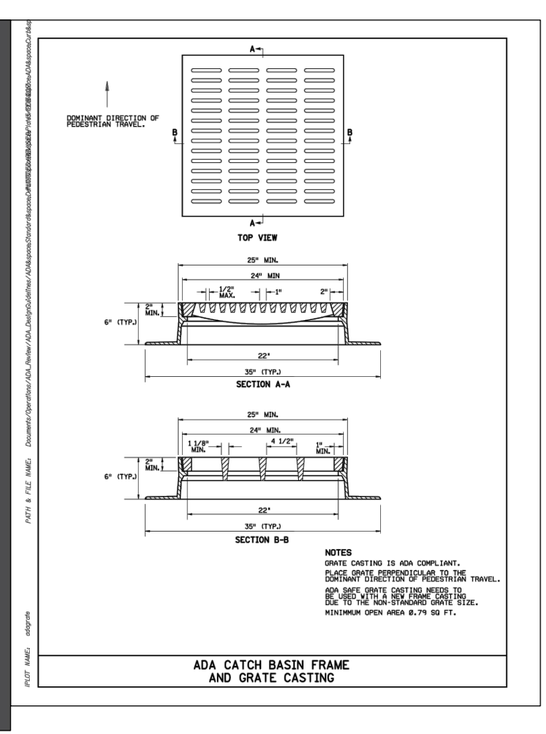
Catalog No.	Description	A	B	C	D	Length
Standard Sizes—Light Duty						
R-4995-A1**	With grated cover	11⅛	3/4	10	6¾	As ordered
R-4995-A2*	With grated cover	7	3/4	5	4¾	As ordered
R-4995-B1	With solid cover	11⅛	3/4	10	6¾	As ordered
R-4995 B2	With solid cover	7	3/4	5	4¾	As ordered
Standard Sizes—Heavy Duty						
R-4996-A1**	With grated cover	11⅛	1¼	10	6	As ordered
R-4996-A2*	With grated cover	7	1¼	5	4¼	As ordered
R-4996-B1	With solid cover	11⅛	1¼	10	6	As ordered
R-4996-B2	With solid cover	7	1¼	5	4¼	As ordered

Above Standard Frames made in 4 ft. sections, covers in 2 ft. lengths.
*Available with Type B grate only.
**Also available with Type P grate.

TRENCH DRAIN

290

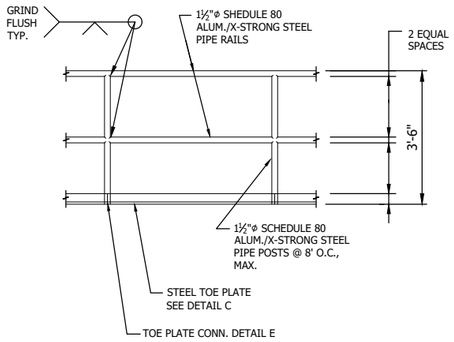
CLICK HERE to return to the Table of Contents



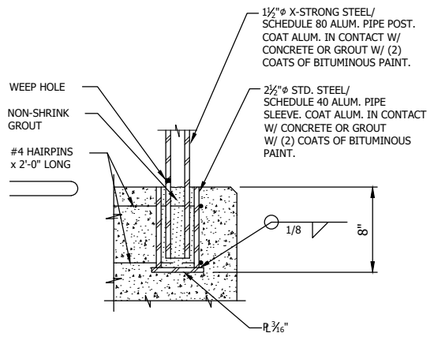
NOTES
GRATE CASTING IS ADA COMPLIANT.
PLACE GRATE PERPENDICULAR TO THE DOMINANT DIRECTION OF PEDESTRIAN TRAVEL.
ADA SAFE GRATE CASTING NEEDS TO BE USED WITH A NEW FRAME CASTING DUE TO THE NON-STANDARD GRATE SIZE.
MINIMUM OPEN AREA 0.79 SQ FT.

ADA CATCH BASIN FRAME AND GRATE CASTING

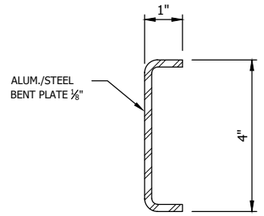
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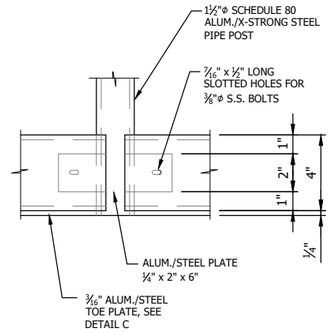
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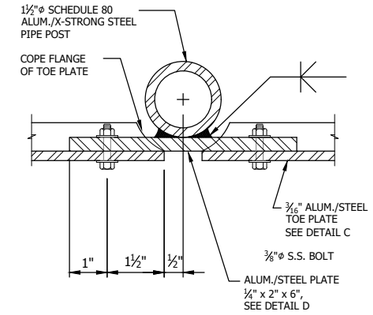
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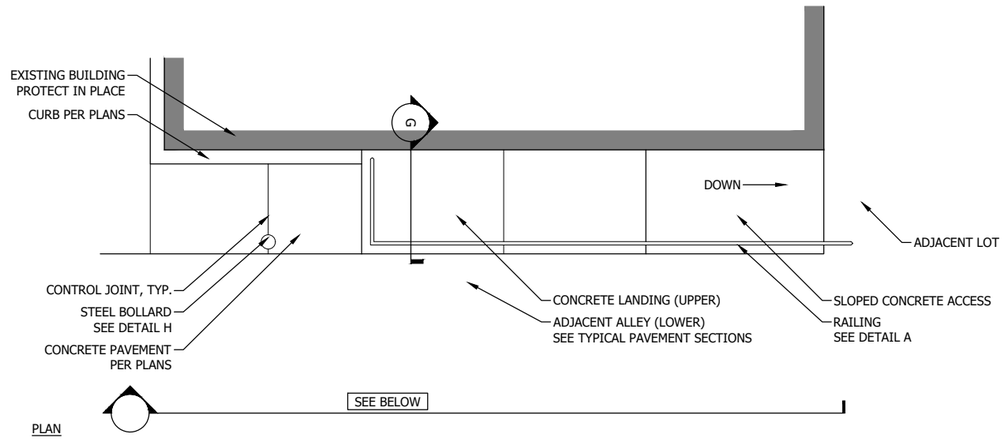
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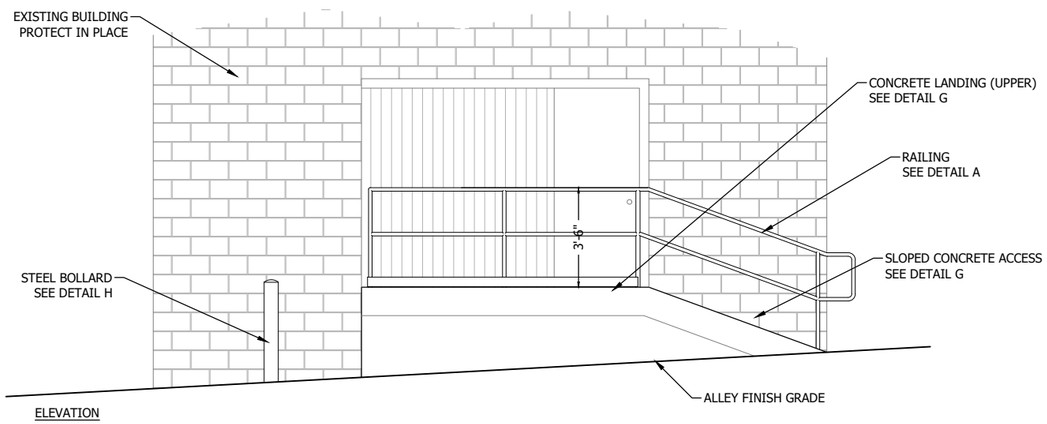


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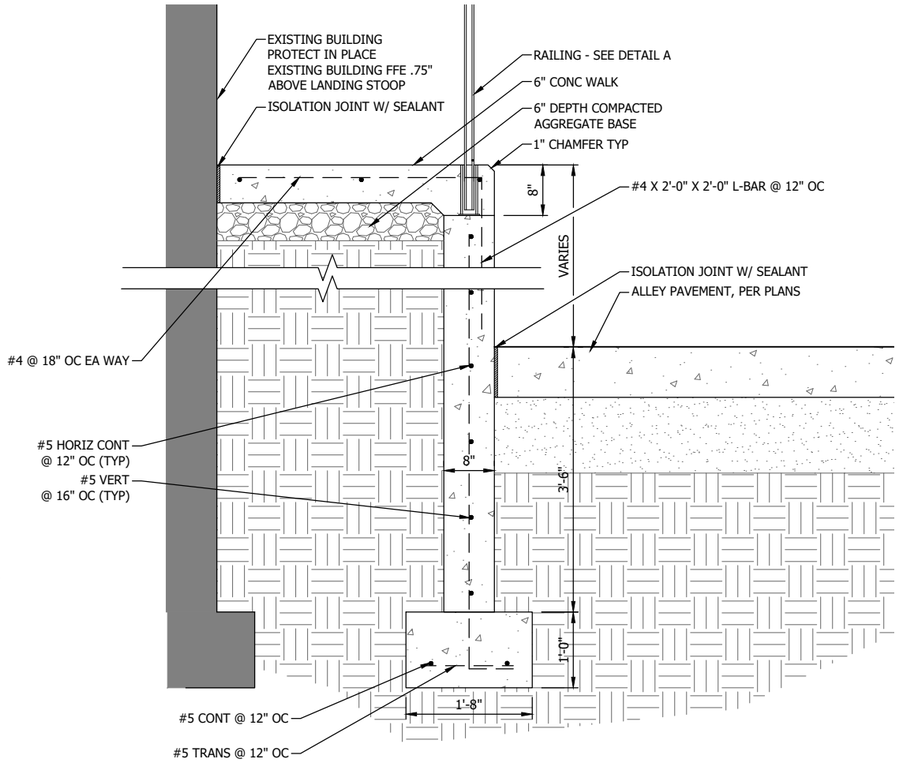


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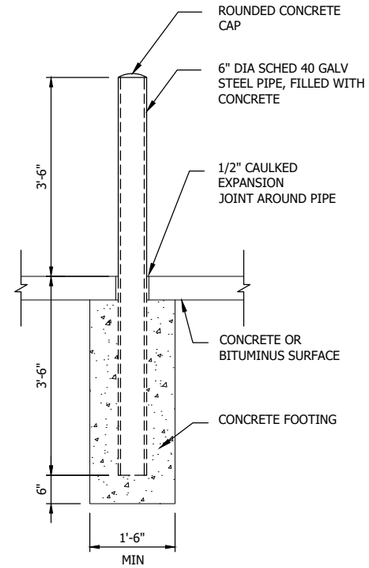




F BUILDING ACCESS AT ALLEY
3/8" = 1'-0"



G TYPICAL SECTION - LANDING AND SLOPED ACCESS
3/8" = 1'-0"



H STEEL BOLLARD
NO SCALE

Plot Date: 03/16/2022 - DETS
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Xrefs: cd123211_bdr_cd123211_cp_parking, cd123211_cp_cd123211_ut_Private, cd123211_ut_top, cd123211_top, 020-053 STREETSCAPE BASE 60

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REV.	BY	DATE

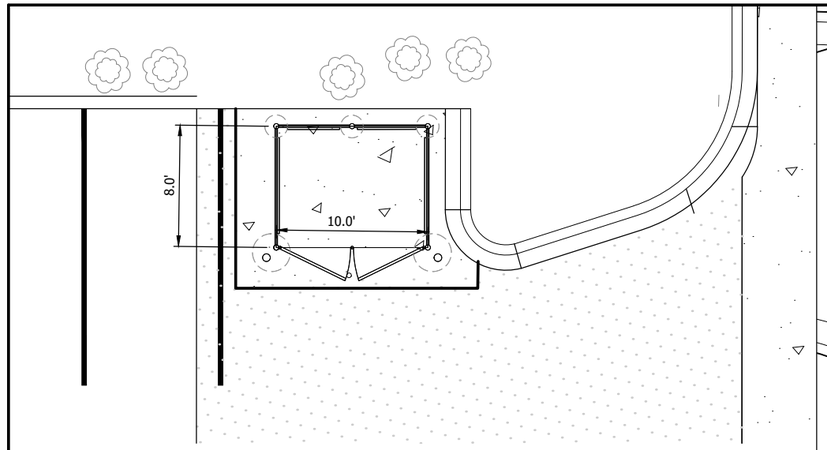
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

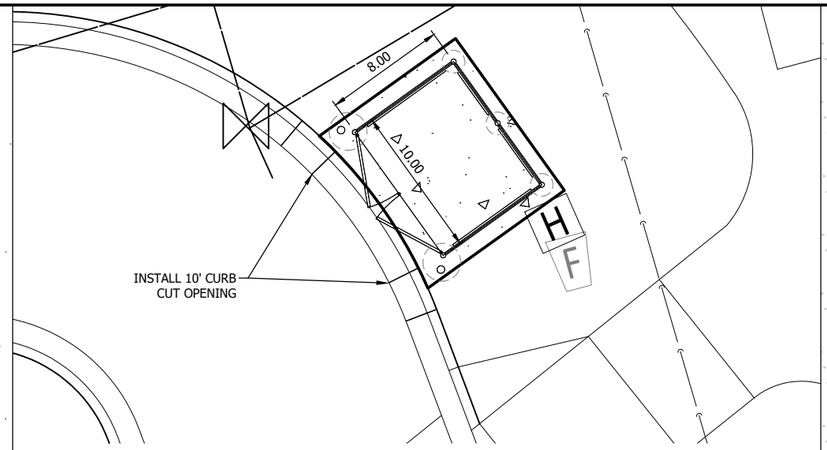
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MRR	JLT/PJW	MRL

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
PUBLIC UTILITY DETAILS

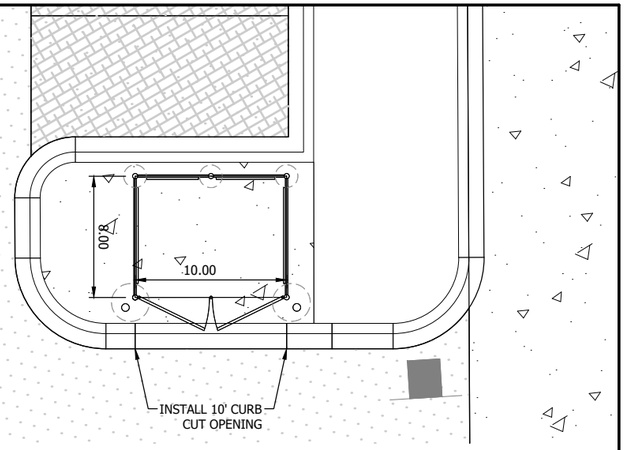
SHEET 199 OF 359



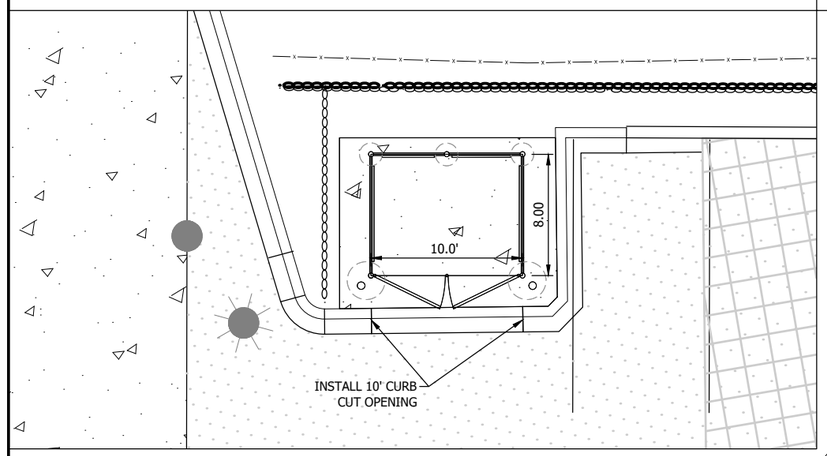
TRASH ENCLOSURE N-1



TRASH ENCLOSURE N-2



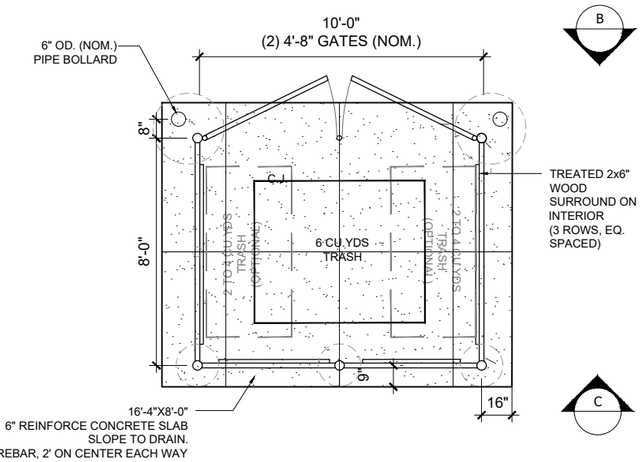
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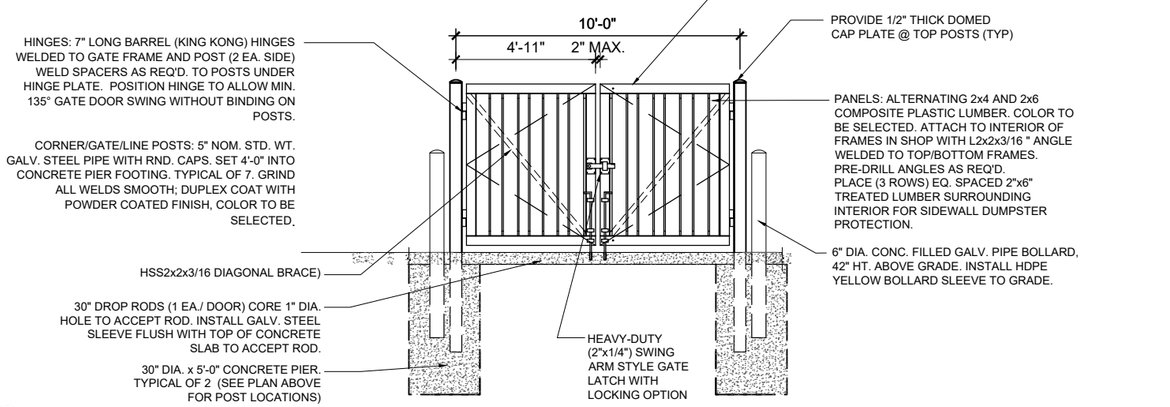
TRASH ENCLOSURE S-2

NOTES:
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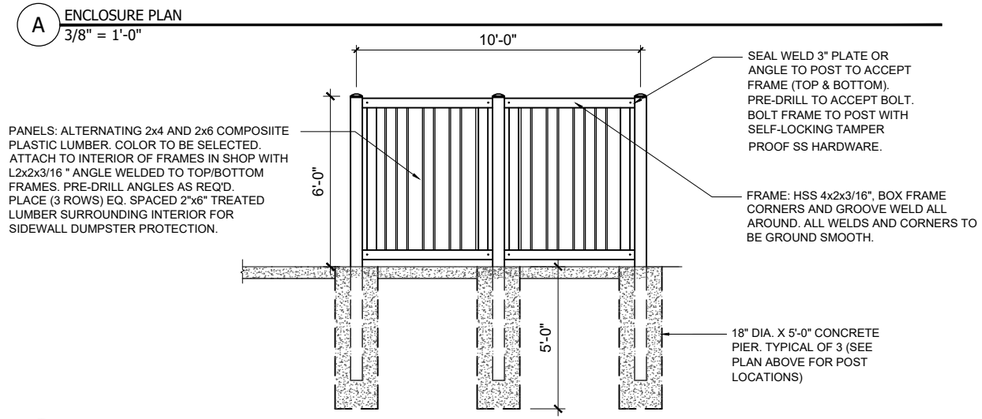
SHOP DRAWINGS REQ'D. FOR ALL METAL FABRICATIONS



A ENCLOSURE PLAN
3/8" = 1'-0"

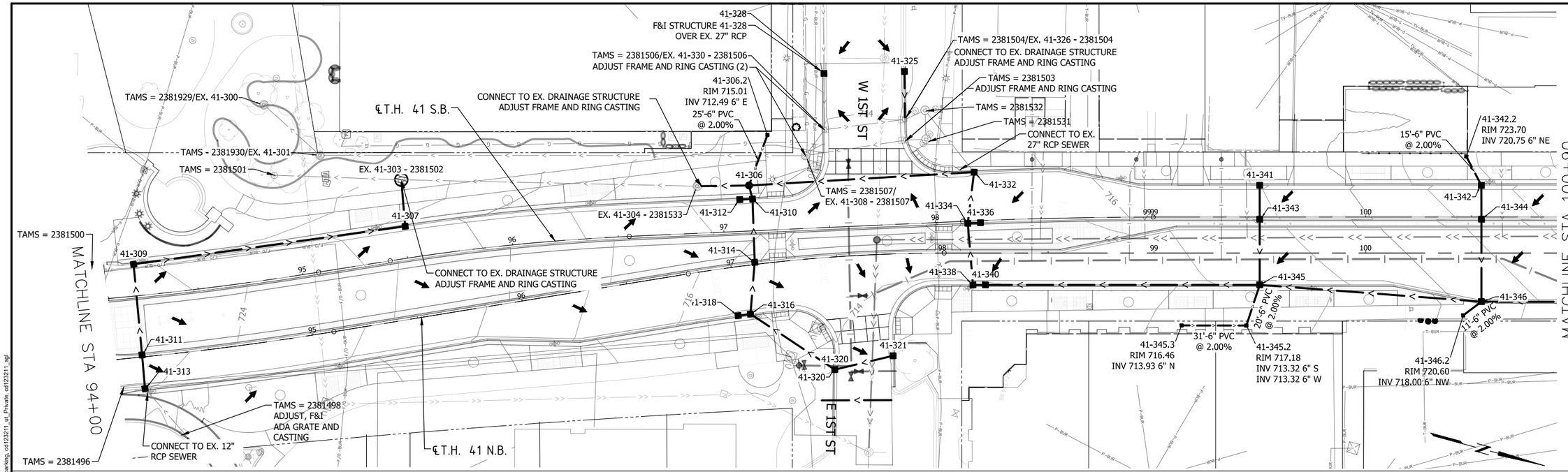


B FRONT SECTION - ELEVATION
3/8" = 1'-0"



C BACK SECTION - ELEVATION
3/8" = 1'-0"

Date/Time: 3/4/2022 DET
Drawing: C:\Civil_3d_Projects_Active_Projects_Private_Projects_Public_Projects_Stantec_Projects_Private_Projects_Public_Projects_Stantec_Projects_Private_Projects_Public_Projects_Stantec



STRUCTURES ON THIS SHEET

STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.
41-306	205	41-316	206	41-338	205	41-345.3	-	EX. 41-322 - 2381531	-	41-362	206	41-368.2	-	41-384	205	41-398	207
41-306.2	-	41-318	206	41-340	205	41-346	196	EX. 41-324 - 2381532	-	41-364	205	41-370	205	41-388.2	-	41-400	207
41-307	206	41-320	206	41-341	206	41-346.2	205	EX. 41-326 - 2381504	206	41-364.2	-	41-372	205	41-390	205	EX. 41-356	-
41-309	206	41-321	206	41-342	206	EX. 41-300	-	EX. 41-330 - 2381506	206	41-365	205	41-376	205	41-391	207	EX. 41-379 - 2332614	207
41-310	206	41-325	206	41-342.2	-	EX. 41-301	-	41-350	205	41-365.2	-	41-378	207	41-392	205		
41-311	206	41-328	206	41-343	197	EX. 41-303 - 2381502	206	41-352	205	41-366	207	41-379	207	41-393	207		
41-312	206	41-332	205	41-344	206	EX. 41-304 - 2381533	205	41-354	206	41-367	207	41-380	207	41-393.2	207		
41-313	206	41-334	205	41-345	206	EX. 41-308 - 2381507	206	41-358	205	41-367.2	-	41-382	205	41-394	207		
41-314	206	41-336	205	41-345.2	205	EX. 41-321 - 2381532	-	41-360	206	41-368	207	41-383	205	41-396	205		

0 25 50
SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED MRR
DRAWN JLT/PJW
CHECKED MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

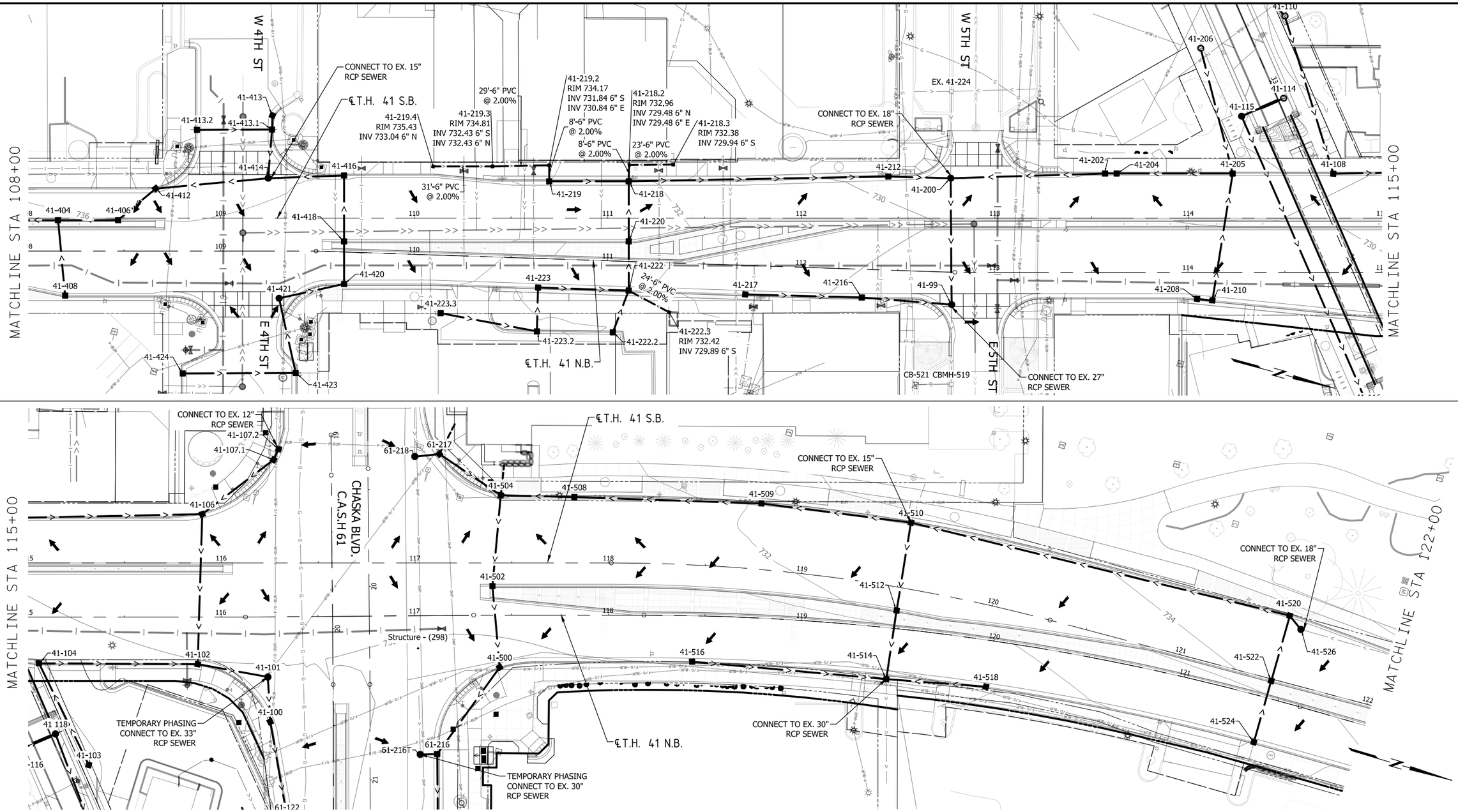
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PLAN

SHEET 201 OF 359

Plotted: 03/16/2022 DR1
Saved: 3/16/2022 C:\Civil_3D_dh_b_infra01\dms80398\cp123211_d01.dwg
Xrefs: cd123211_SAN-WM, cd123211_STORM, cd123211_cg, cd123211_erw, cd123211_in, cd123211_now, cd123211_se, cp123211_bdr, 193806972-XSXT, cd123211_wm, cd123211_top, 020-053 STREETSCAPE BASE 60, cd123211_sgl

Plotted Date: 03/16/2022 - DP2
Drawing Name: C:\Users\jlt\Stantec\Documents\R-Projects\193805072-XSXT\Drawings\Roadway\cd123211_SAN-WM_cd123211_STORM_cd123211_cp_dh_jh_infa01dms80368\cp123211_dr1.dwg
Xrefs: cd123211_cp_parking_cd123211_cp_dh_jh_infa01dms80368\cp123211_ut_Private_cd123211_ewk_cd123211_in_cd123211_row_cd123211_we_cp123211_bdr_193805072-XSXT_cd123211_wm_cd123211_top_020-053 STREETSCAPE BASE 60_cd123211_sgl



STRUCTURES ON THIS SHEET

STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.
41-108	210	41-206	208	41-219	208	41-223.2	208	41-414	205	EX. 41-224	-	41-107.1	209	41-512	209	61-217	212
41-110	210	41-208	208	41-219.2	-	41-223.3	208	41-416	205	EX. 41-422	-	41-107.2	209	41-514	209	61-218	212
41-114	-	41-210	208	41-219.3	-	41-404	205	41-418	205	41-99	208	41-118	201	41-516	209		
41-115	210	41-212	208	41-219.4	-	41-406	205	41-420	205	41-100	209	41-500	209	41-518	209		
41-116	210	41-216	208	41-220	208	41-408	207	41-421	207	41-101	211	41-502	209	41-520	209		
41-200	208	41-217	208	41-222	208	41-412	205	41-423	207	41-102	209	41-504	209	41-522	209		
41-202	208	41-218	208	41-222.2	208	41-413	207	41-424	207	41-103	208	41-508	209	41-524	209		
41-204	208	41-218.2	-	41-222.3	-	41-413.1	205	CB-521	-	41-104	208	41-509	209	41-526	209		
41-205	208	41-218.3	-	41-223	208	41-413.2	205	CBMH-519	-	41-106	209	41-510	209	61-216	209		

0 25 50
SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

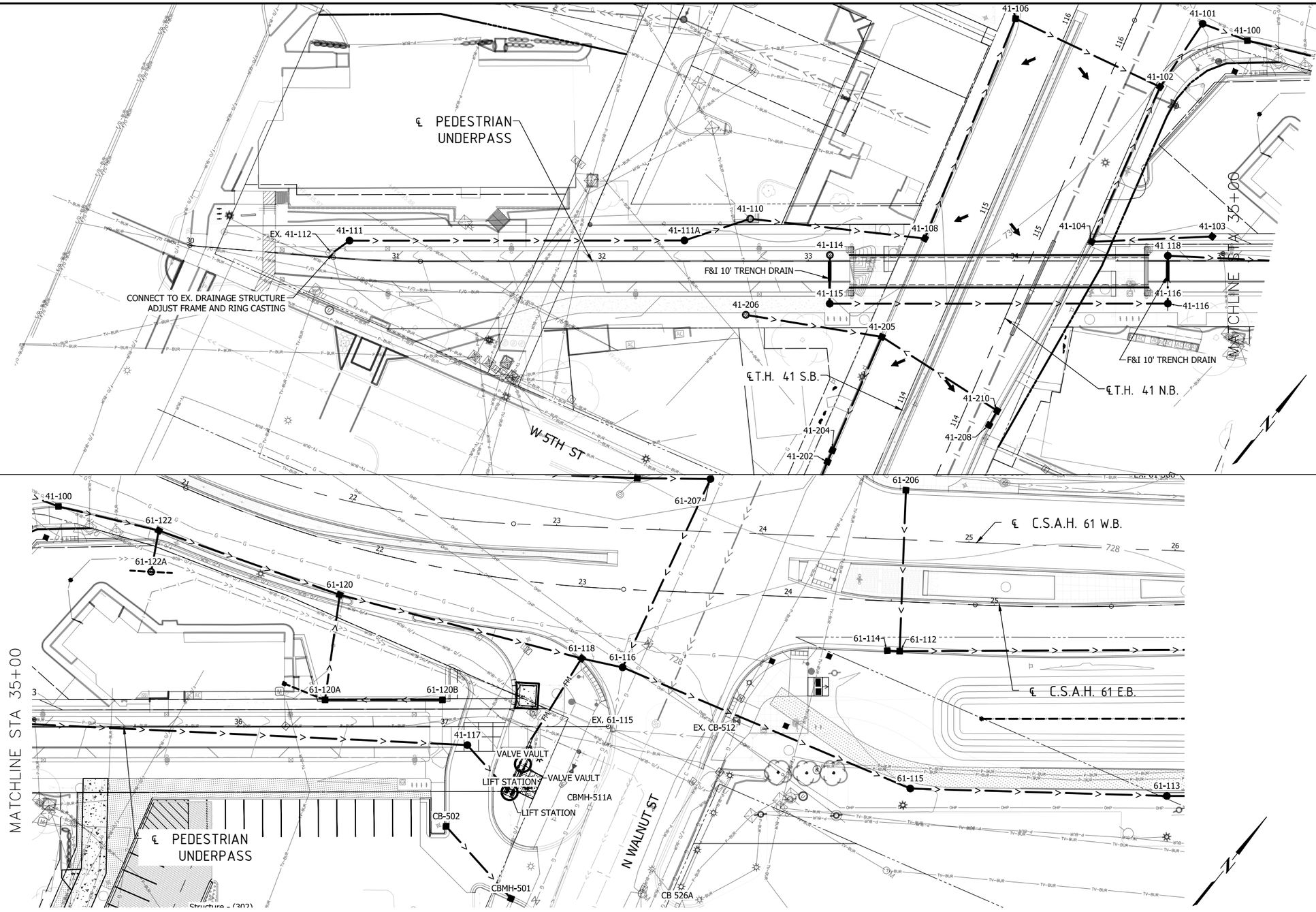
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PLAN

SHEET 202 OF 359



STRUCTURES ON THIS SHEET

STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.
41-118	208	41-110	210	41-116	210	41-208	208	41-117	210	61-116	211	61-122	211	CB 526A	-	CBMH-511A	-
41-102	208	41-111	210	41-202	208	41-210	208	61-112	211	61-118	211	61-122A	-	CB-502	206	EX. 61-115	-
41-104	210	41-111A	-	41-204	208	EX. 41-112	210	61-113	211	61-120	211	61-206	211	CB-512	-	EX. 61-310	-
41-106	210	41-114	210	41-205	208	41-100	211	61-114	211	61-120A	211	61-207	212	CBMH-501	206	EX-CBMH-502	215
41-108	210	41-115	210	41-206	208	41-103	208	61-115	211	61-120B	211	61-212	212	CBMH-502A			

SCALE 0 25 50 FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED MRR
DRAWN JLT/PJW
CHECKED MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

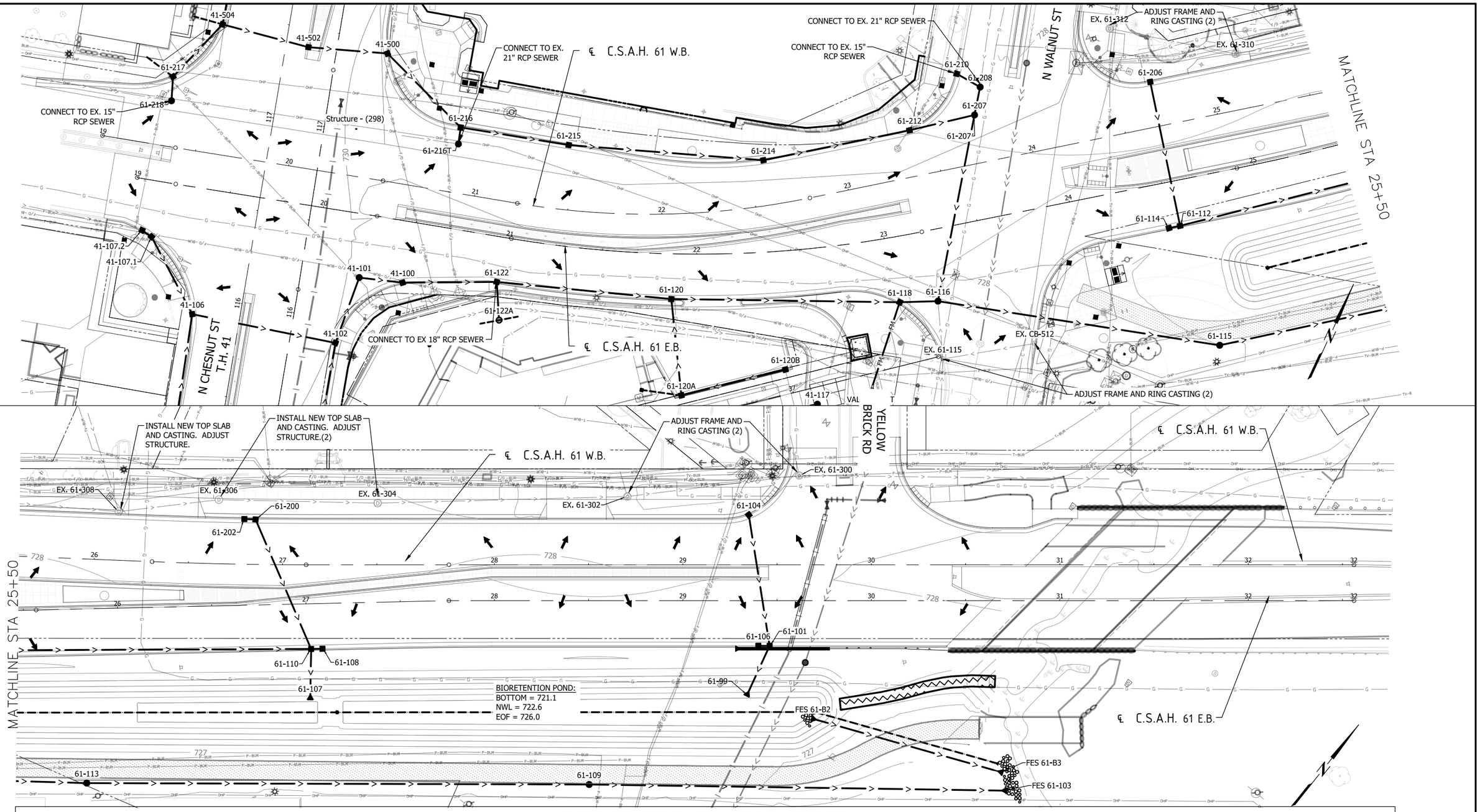
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PLAN

SHEET 203 OF 359

Date/Time: 3/4/2022, DRD
Drawing Name: C:\pw_ph_infra01\dms80398\cp123211_dr1.dwg
Xref: c:\pw_ph_infra01\dms80398\cp123211_ut_Private, cd123211_sgl
Xref: c:\pw_ph_infra01\dms80398\cp123211_STORM, cd123211_cp, cd123211_erw, cd123211_in, cd123211_row, cd123211_se, cp123211_bdr, 193850972-XSXT, cd123211_wtn, cd123211_top, 020-053 STREETSCAPE BASE 60, cd123211_SAN-WM, cd123211_STORM, cd123211_cp_parking, cd123211_ut_Private, cd123211_sgl

Plotted: 3/16/2022 DRK
Saved: 3/16/2022 2:07:00 PM by C:\cw_dn_lh_infra01\dms80398\cgp123211_dn1.dwg
Xrefs: cd123211_SAN:WM, cd123211_STORM, cd123211_cg, cd123211_erw, cd123211_in, cd123211_now, cd123211_sa, cp123211_bdr, 193805072-XSXT, cd123211_wm, cd123211_top, 020-053 STREETSCAPE BASE 60, cd123211_cp_parking, cd123211_ut_Private, cd123211_sgl



STRUCTURES ON THIS SHEET

STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.
41-100	209	41-504	209	61-120	211	61-208	212	61-217	212	61-101	213	61-113	211	EX. 61-304	212		
41-102	209	41-508	-	61-120A	211	61-210	212	61-218	212	61-104	213	61-200	213	EX. 61-306	212		
41-106	209	61-112	212	61-120B	211	61-212	212	61-314	212	61-106	213	61-202	213	EX. 61-308	212		
41-107.1	209	61-114	212	61-122	211	61-214	212	CB-512	-	61-107	213	61-308	212	FES 61-103	211		
41-107.2	209	61-115	211	61-122A	211	61-215	212	EX. 61-115	-	61-108	213	61-99	213	FES 61-B2	213		
41-500	209	61-116	211	61-206	213	61-216	212	EX. 61-310	-	61-109	211	EX. 61-300	212	FES 61-B3	213		
41-502	209	61-118	211	61-207	212	61-216T	212	EX. 61-312	212	61-110	213	EX. 61-302	212				

0 25 50
SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

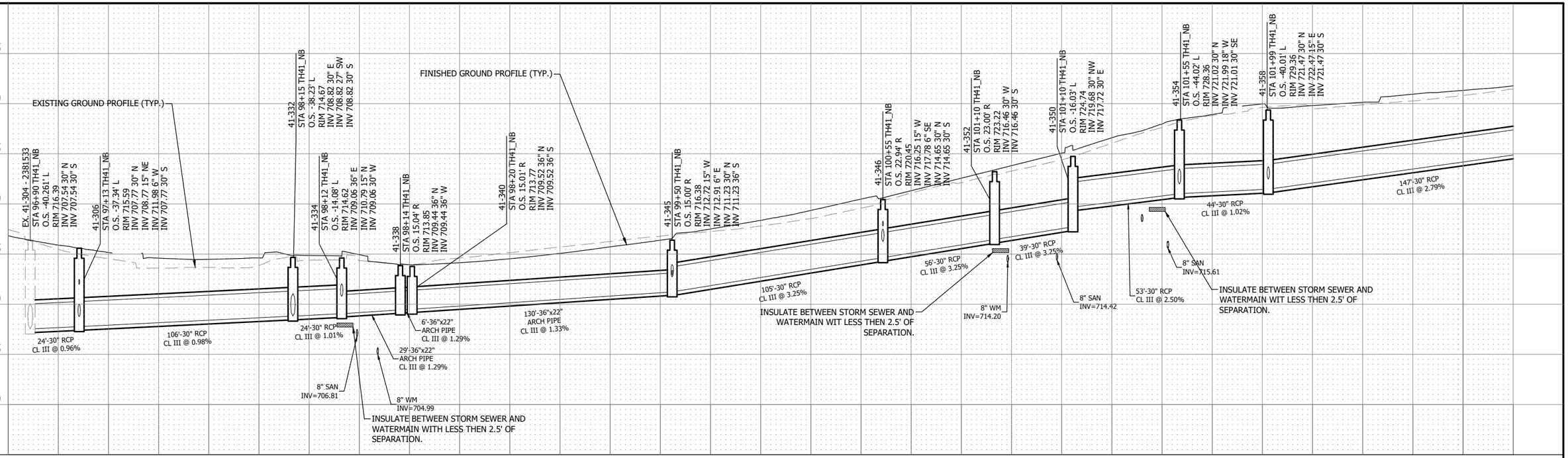
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PLAN

SHEET 204 OF 359



NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HORIZ. 0 25 50 SCALE FEET

VERT. 0 5 10 SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

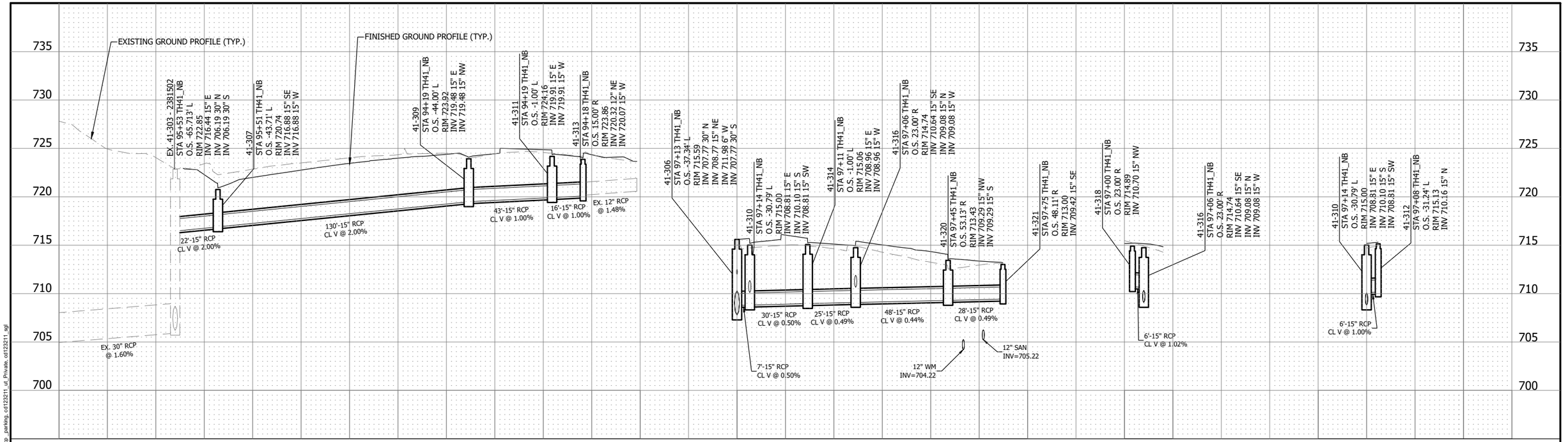
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

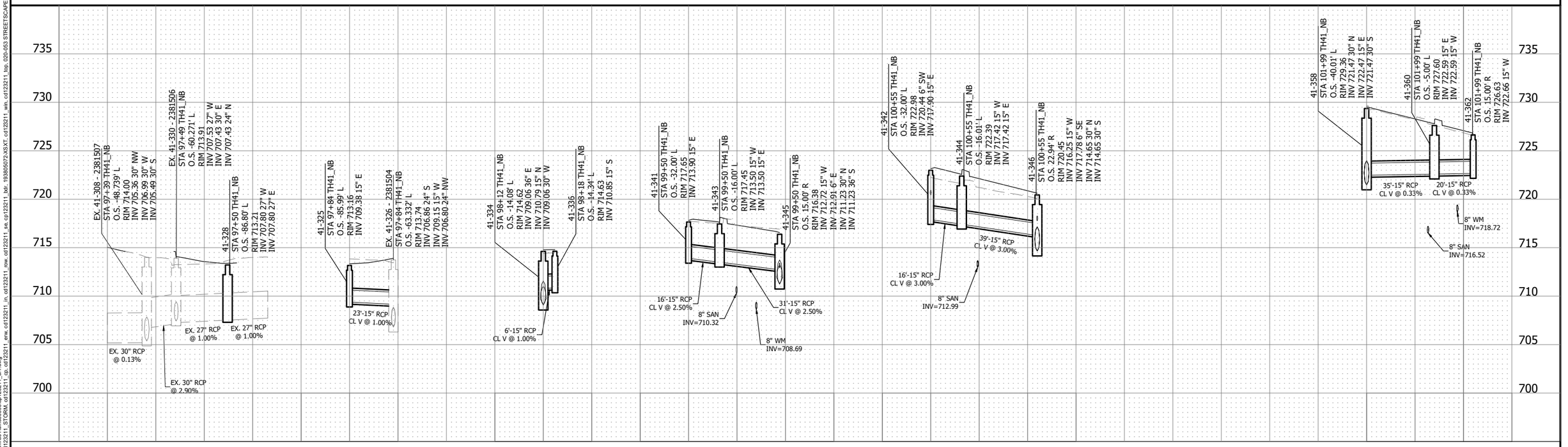
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 205 OF 359

Plotted: Oct 19, 2022 - 7:07:20 AM
Plotted By: Offerman, Alan
Drawing: C:\cw_dn_fs_infra01\dms80398\cp123211_dr1.dwg
Xrefs: cd123211_SAN+WM, cd123211_STORM, cd123211_cp, cd123211_parking, cd123211_ut_Private, cd123211_sw, cd123211_ow, cd123211_in, cd123211_sa, cp123211, bdr_193805072-XBXT, cd123211_win, cd123211_top, 020-053 STREETSCAPE BASE 60, cd123211_tsp





NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HORZ. 0 25 50 SCALE FEET

VERT. 0 5 10 SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

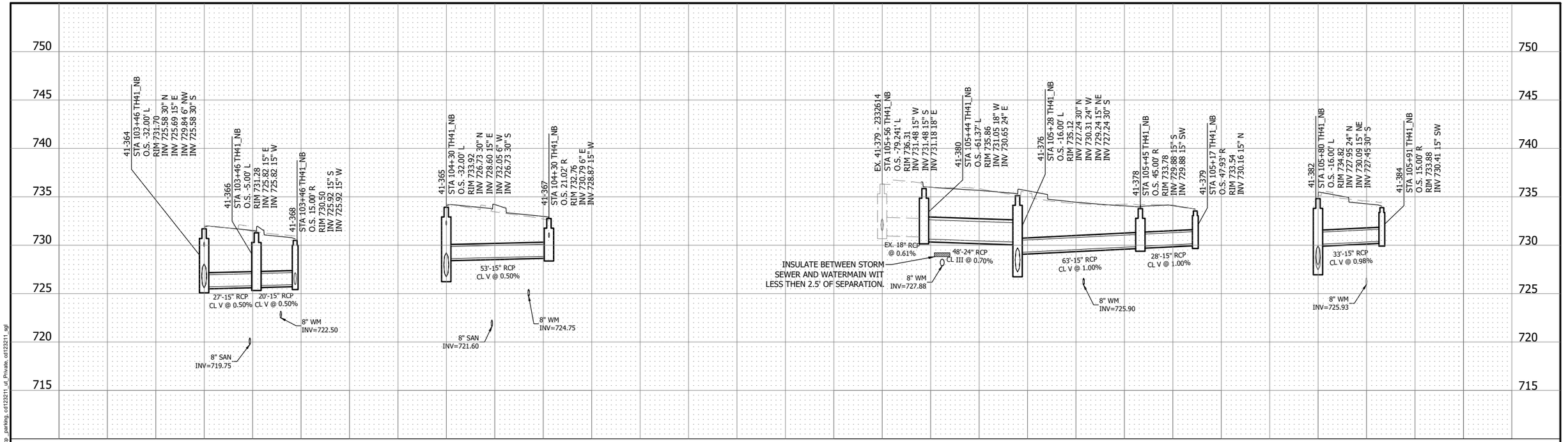
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 206 OF 359

Plotted: 16/03/2022 DRG
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Xrefs: cd123211_SAN+WM, cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_ew, cd123211_in, cd123211_sa, cp123211, bdr_193805072-XrSXT, cd123211_wm, cd123211_tsp, 020-053 STREETSCAPE BASE 60, cd123211_parking, cd123211_ut_Private, cd123211_sgl

Plotted: Oct 19, 2022 - 10:07:20 AM DRF
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NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HOR. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

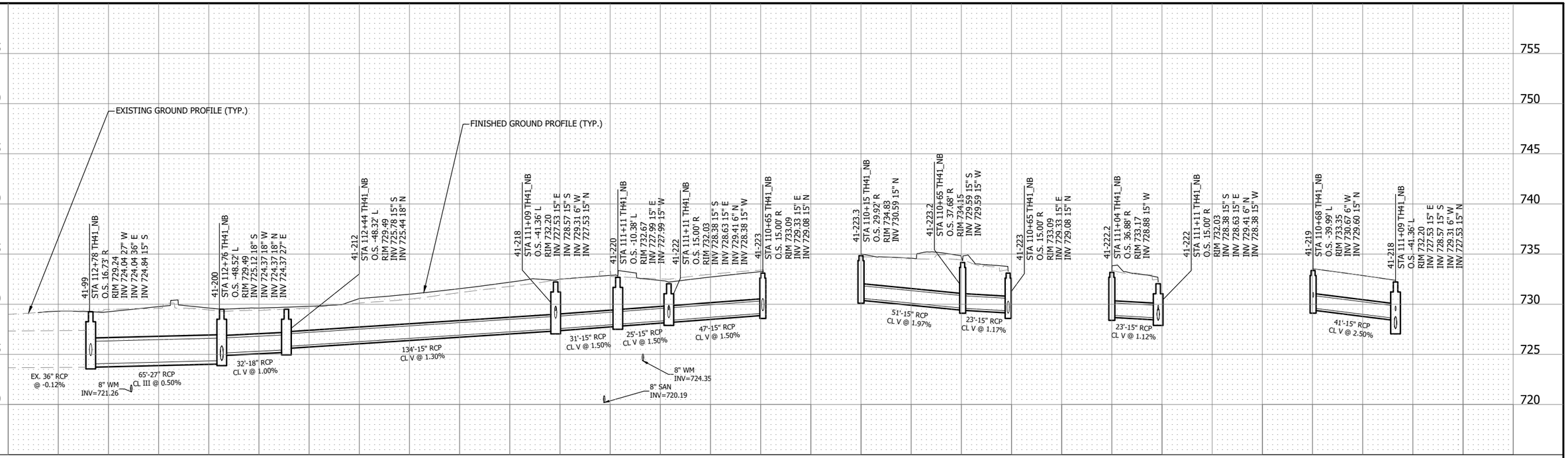
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

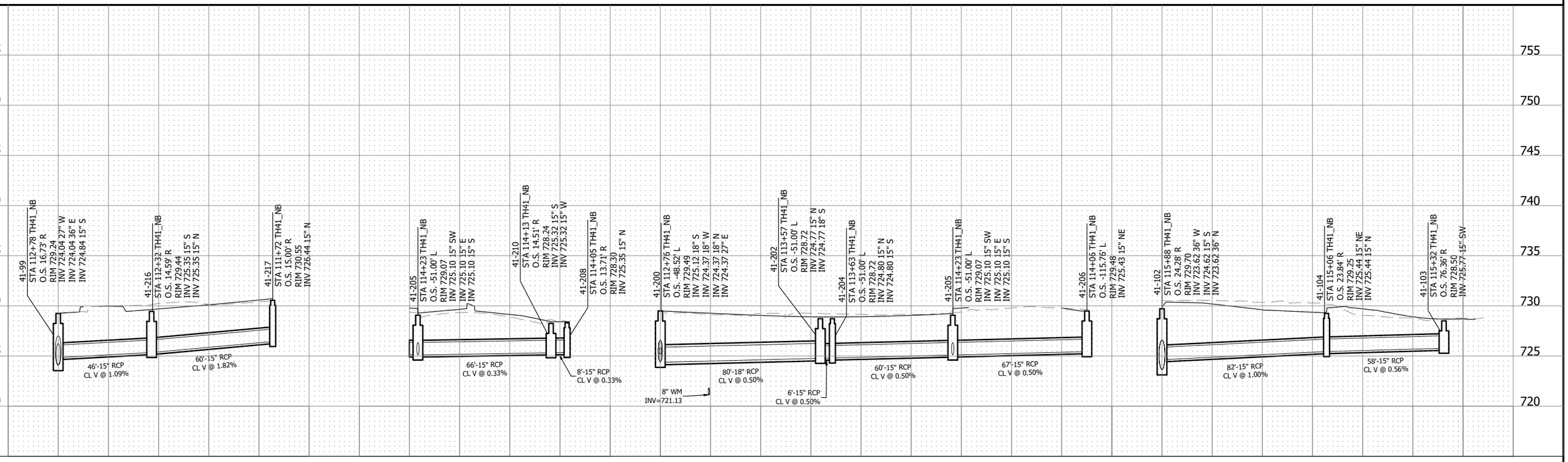
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 207 OF 359





NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HOR. 0 25 50 SCALE FEET

VERT. 0 5 10 SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

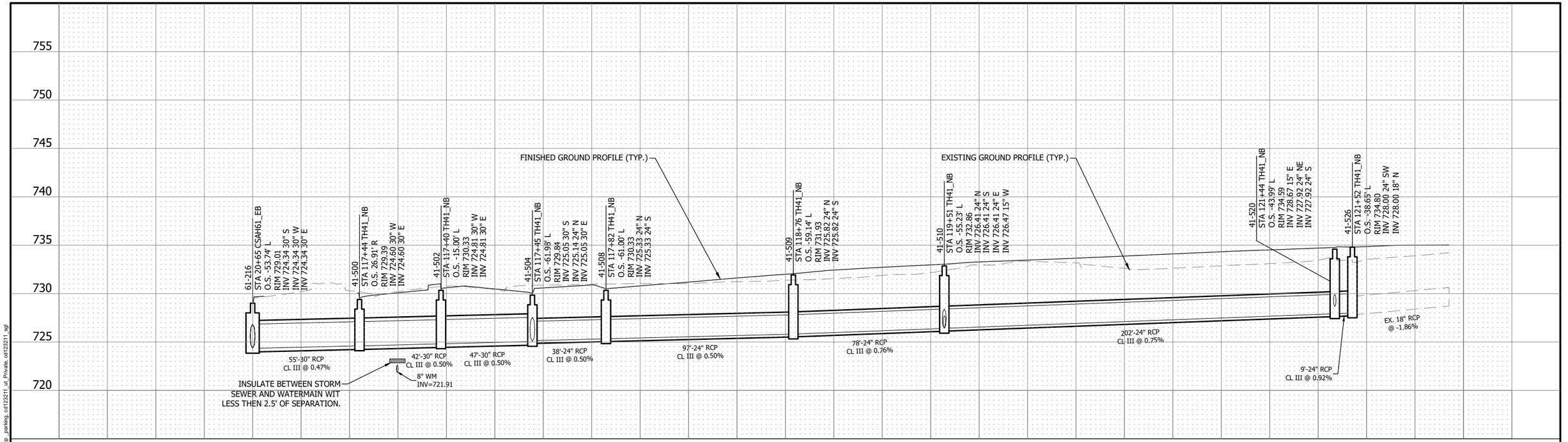
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 208 OF 359

Plotted: 16/03/2022 DRR
Xrefs: C:\cw_dn_lh_infra01\dms8038\sp123211_d01.dwg
Xrefs: cd123211_SAN+WM, cd123211_STORM, cd123211_cp, cd123211_srw, cd123211_ln, cd123211_sow, cd123211_sa, cp123211_bdr, 19380507-X63XT, cd123211_wm, cd123211_tsp, 020-053 STREETSCAPE BASE 60, cd123211_ut_Private, cd123211_sgl



NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HOR. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

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REV.	BY	DATE

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

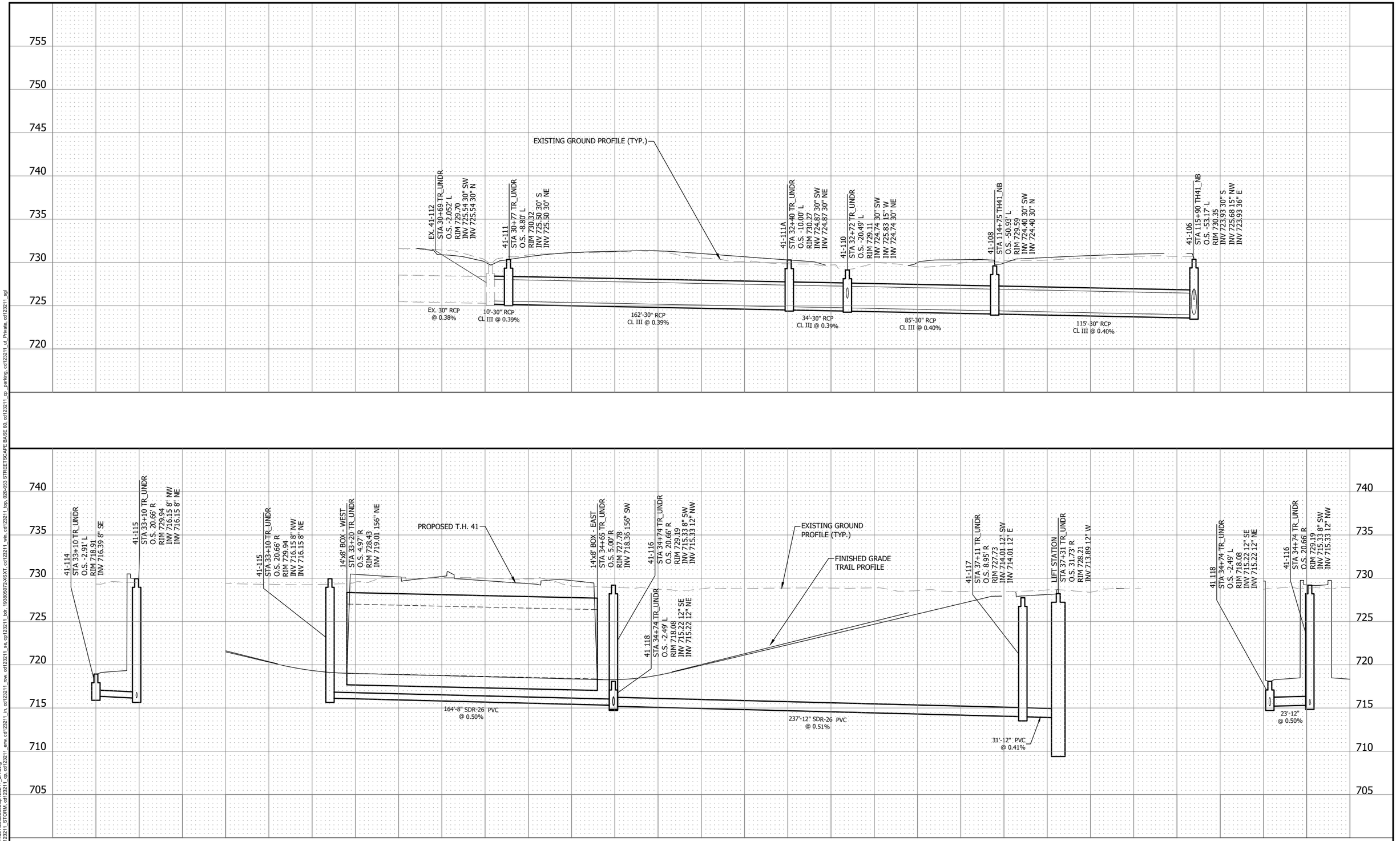
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 209 OF 359

Plotted: 16/03/2022 DRG
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Xrefs: cd123211_SAN+WM, cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_ln, cd123211_erw, cd123211_sw, cd123211_sa, cp123211_bdr, 193805072-XrSXT, cd123211_wm, cd123211_tsp, 020-053 STREETSCAPE BASE 60, cd123211_SAN+WM, cd123211_STORM, cd123211_cp, parking, cd123211_ut_Private, cd123211_sgl



NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HORZ. 0 25 50 SCALE FEET

VERT. 0 5 10 SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

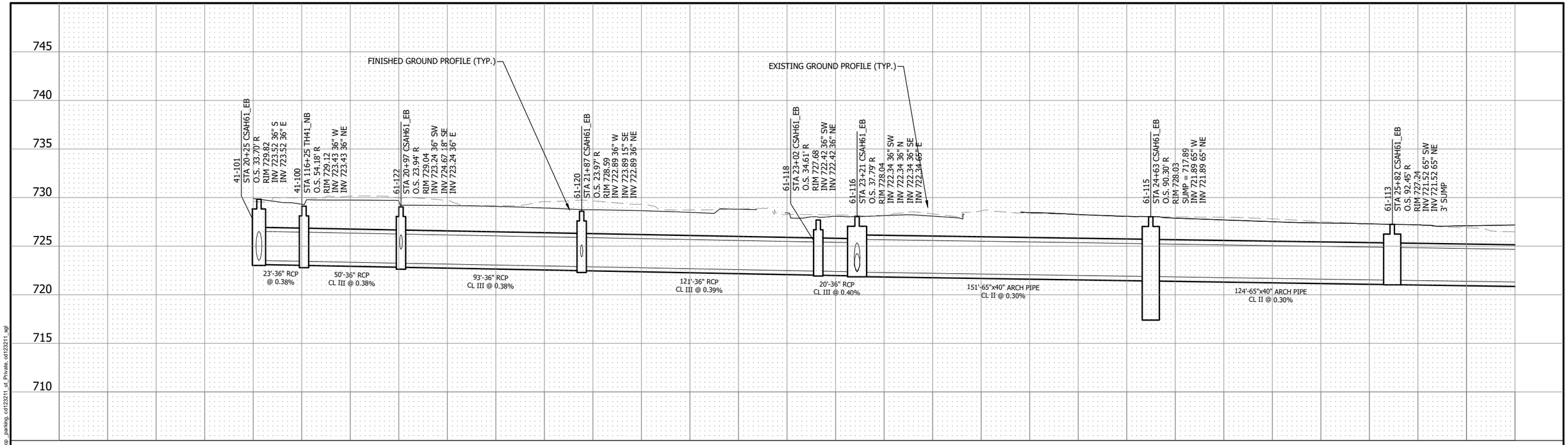
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 210 OF 359

Plotted: 16/03/2022 DIR:\0
Xrefs: c:\cw_dn_hh_mfnd01\dms8038\lpp123211_dr1.dwg
c:\cw_dn_hh_mfnd01\dms8038\cd123211_STORM_cd123211_go_cd123211_srw_cd123211_sew_cd123211_in_cd123211_sea_cp123211_bdr_19380507?-X$XT; cd123211_wn_cd123211_top_020-053 STREETSCAPE BASE 60_cd123211_SAN-WM_cd123211_STORM_cd123211_ut_Private_cd123211_sgl



NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HORZ. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

Stantec

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Minneapolis MN 55402
www.stantec.com

REV.	BY	DATE

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

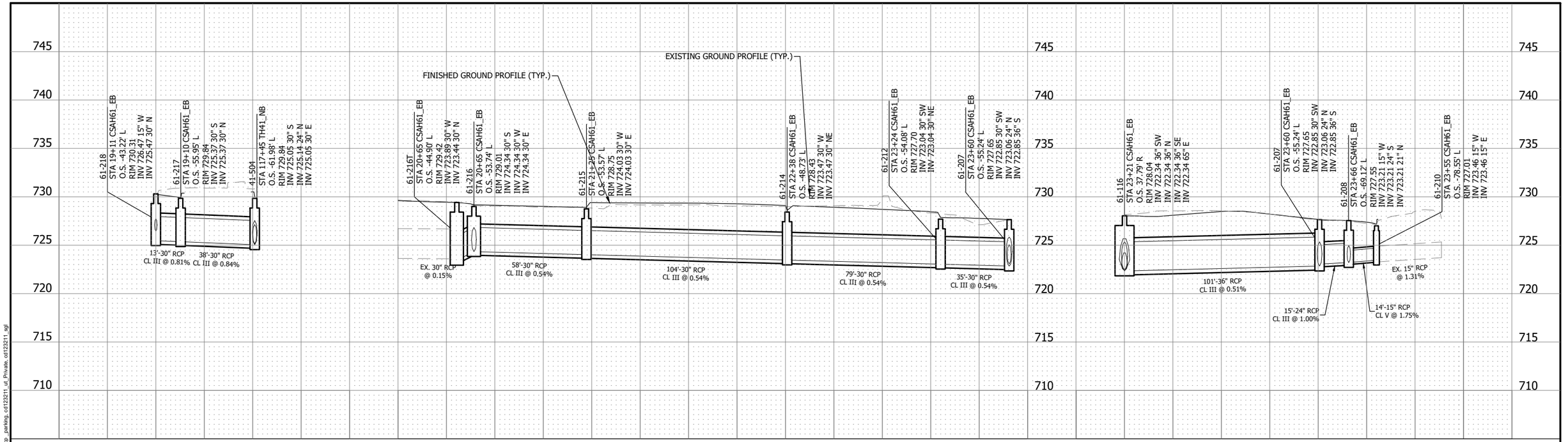
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

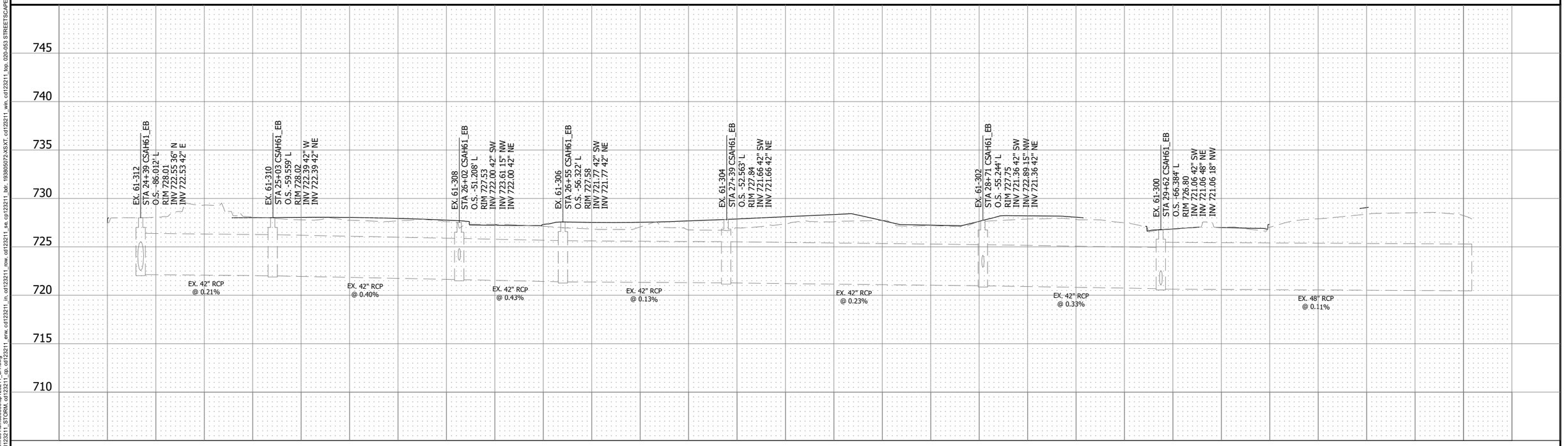
DRAINAGE PROFILES

SHEET 211 OF 359

Date/Time: 3/4/2022 7:07:11 AM Login: jlt Drawing: C:\cw_jlt_jlt_mfnd01\dms80398\cp123211_dr1.dwg
Xrefs: cd123211_SAN+WM, cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_in, cd123211_ow, cd123211_se, cp123211, bdr_193805072-X63X1, cd123211, wm, cd123211_tsp, 020-053 STREETSCAPE BASE 60, cd123211_ut_Private, cd123211_sgl

Plotted: Oct 19, 2022 - 10:07:20 AM, DRIVE
Plotted By: Offerman, Alan
Drawing: C:\cw_dn_tx_mfe01\dms80398\cp123211_drl.dwg
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NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HOR. 0 25 50 SCALE FEET

VERT. 0 5 10 SCALE FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

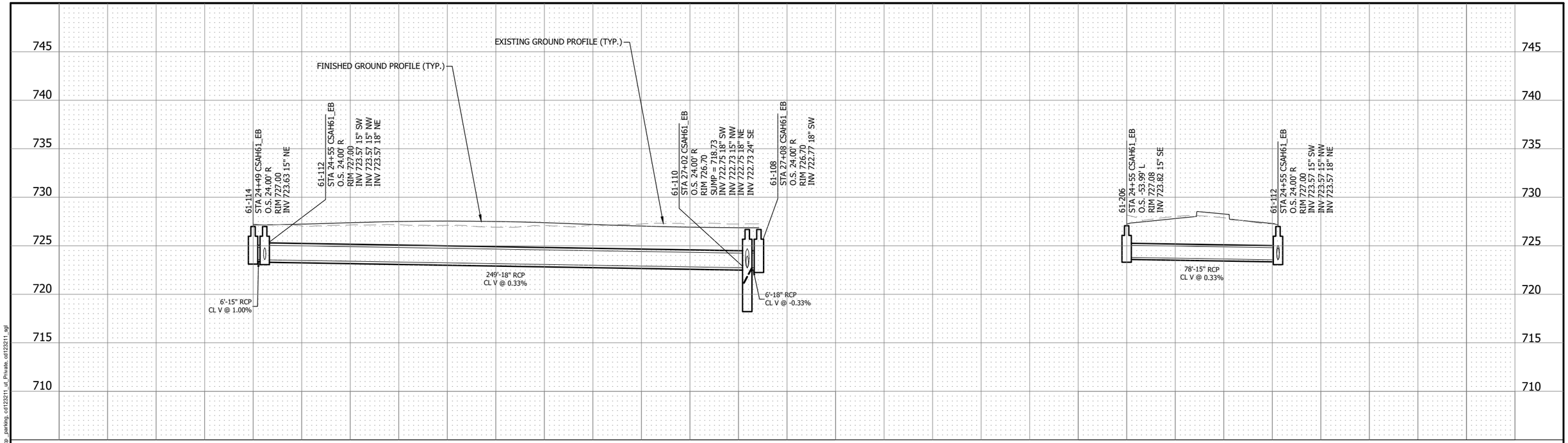
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S.P. 196-010-018, S.P. 196-020-014

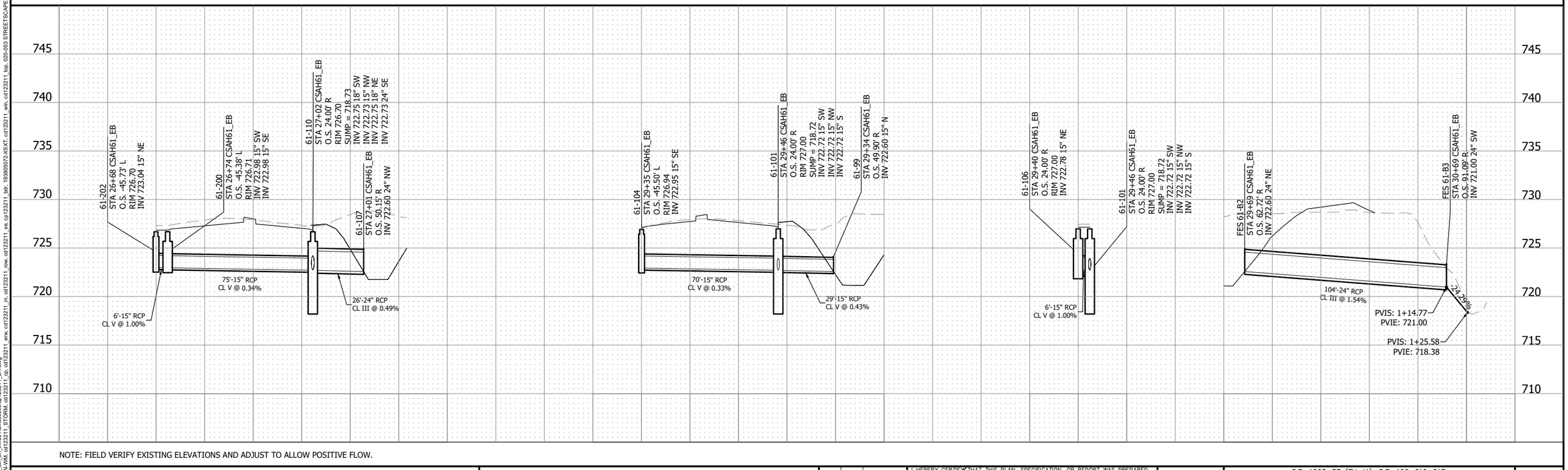
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 212 OF 359

Plotted: Mar 16, 2022 - 2:21pm
Plotted by: Alan Offerman
Drawing: C:\cw_dn_tn_mfn01\dms80398\cp123211_dr1.dwg
Xrefs: cd123211_SAN;WM, cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_in, cd123211_erw, cd123211_sea, cp123211, bdr, 193805072-XSXT, cd123211_wtn, cd123211_tsp, 020-053 STREETSCAPE BASE 60, cd123211_ut_Private, cd123211_sgl





NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HOR. 0 25 50 SCALE FEET

VERT. 0 5 10 SCALE FEET

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DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

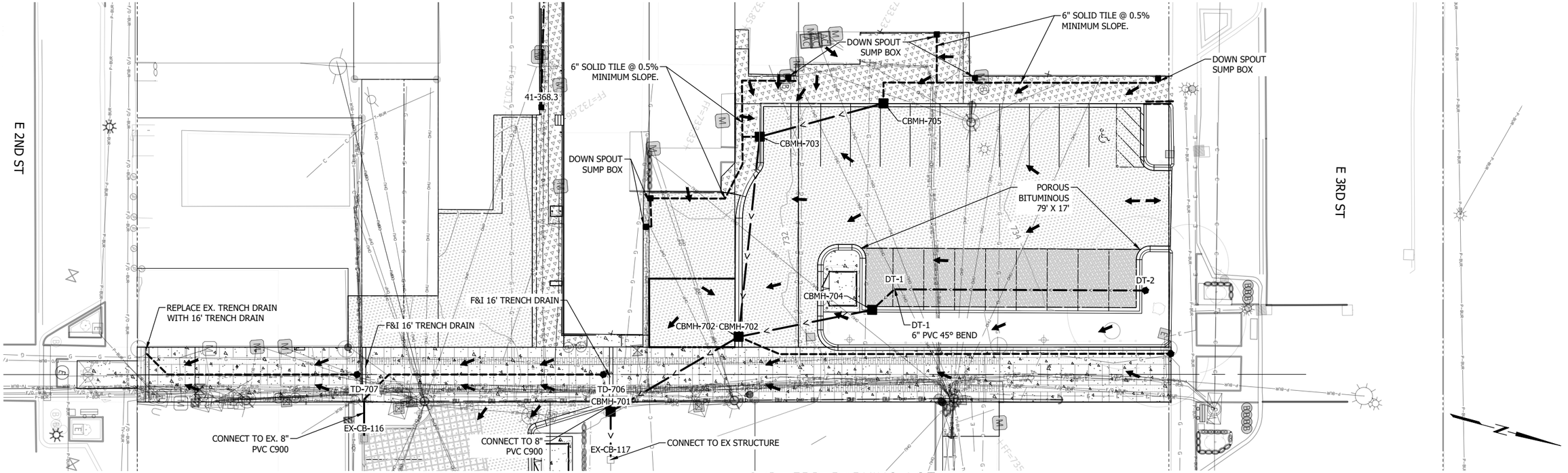
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE PROFILES

SHEET 213 OF 359

PLOTTED BY: Dakota.Ostby@stantec.com 10/6/2022 - 10:57:20 AM
C:\Users\dakota.ostby\AppData\Local\Temp\AcPublish_6088\[cd123211_dr1.dwg]cd123211_DR1
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STRUCTURES ON THIS SHEET

STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.	STRUCTURE NO.	PROFILE SHT NO.
CBMH-701	215	CBMH-704	215	DT-2	215	EX-CBMH-106	-	TD-707	-	CB-606	-	CBMH-530	-	CBMH-603	215	CBMH-801	215
CBMH-702	215	CBMH-705	215	EX-CB-116	-	EX-CBMH-95	-	CB 525	-	CBMH-518	-	CBMH-601	215	CBMH-604	215	CB-802	215
CBMH-703	215	DT-1	215	EX-CB-117	215	TD-706	-	CB-522	-	CBMH-523	-	CBMH-602	215	CBMH-605	215		

SCALE 0 15 30 FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

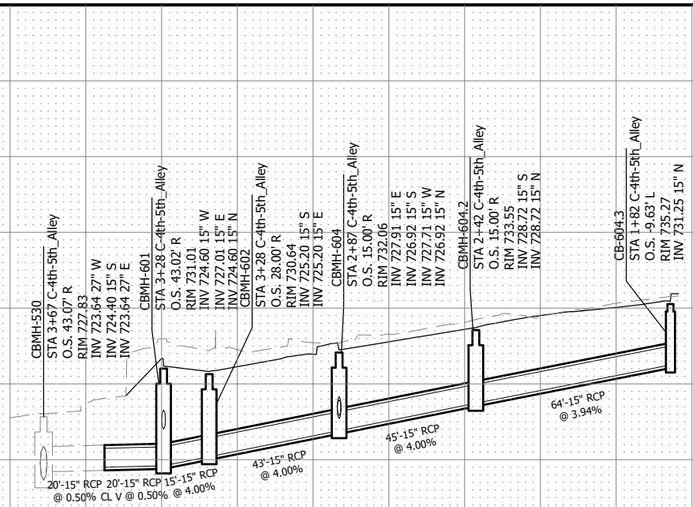
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

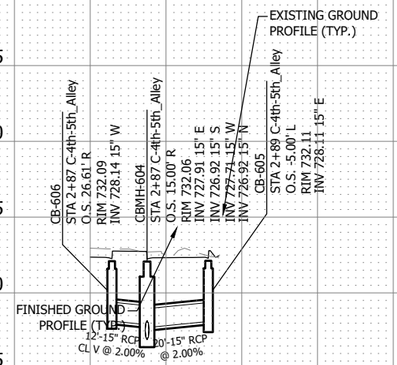
S.P. 1008–87 (TH 41), S.P. 196–010–017,
S.P. 196–010–018, S.P. 196–020–014

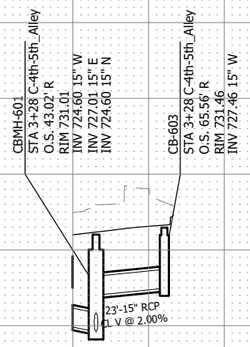
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

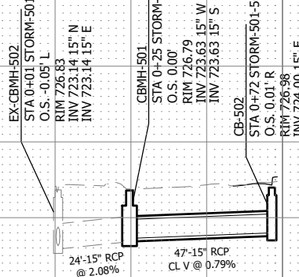
DRAINAGE PLAN

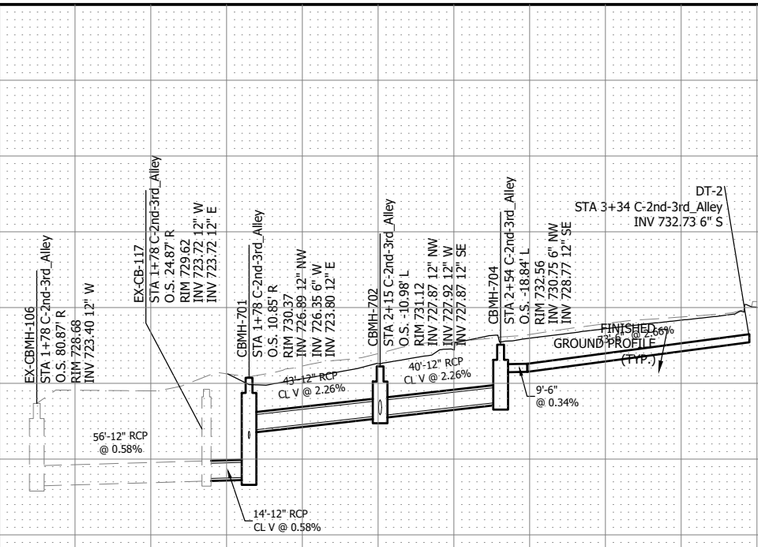
SHEET 214 OF 359

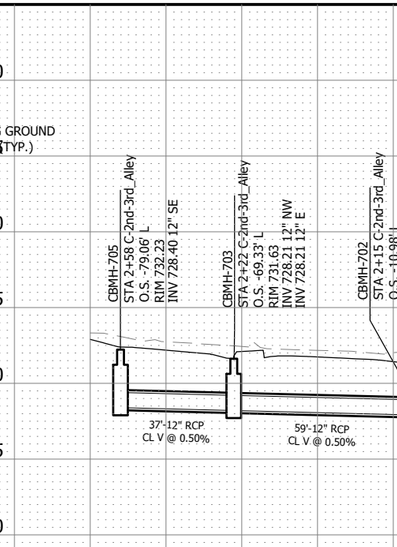


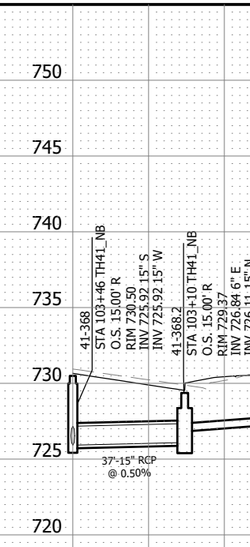


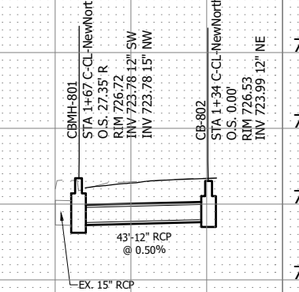












NOTE: FIELD VERIFY EXISTING ELEVATIONS AND ADJUST TO ALLOW POSITIVE FLOW.

HOR. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

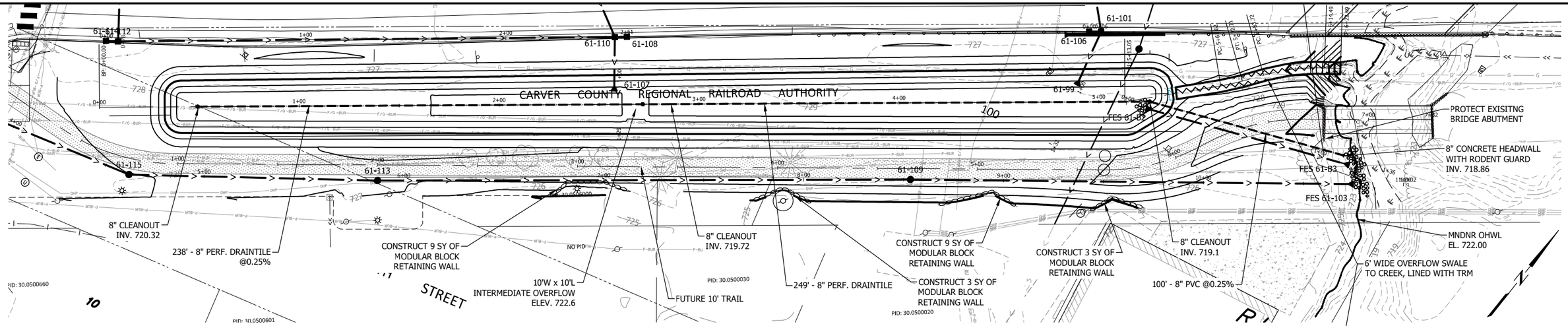
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

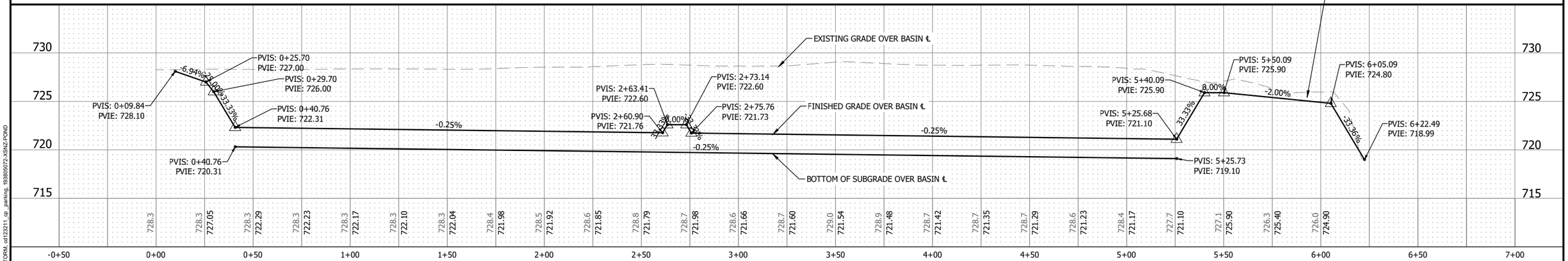
DRAINAGE PROFILES

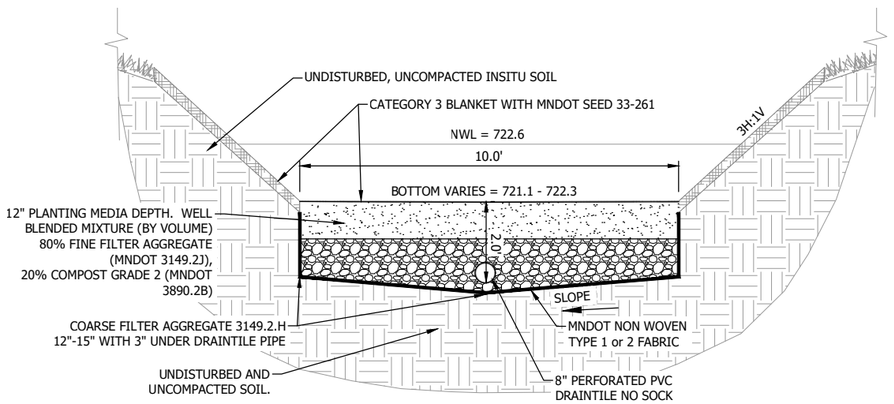
SHEET 215 OF 359

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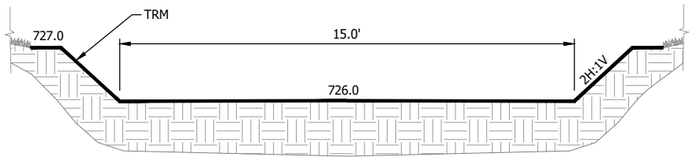
C.S.A.H. 61 BIOFILTRATION BASIN





FILTRATION BASIN - CROSS SECTION

NOT TO SCALE



OVERFLOW SWALE - CROSS SECTION

NOT TO SCALE

FILTRAION BASIN LUMP SUM QUANTITIES		
8" PERF. TILE	LIN. FT.	490
8" SOILD PIPE	LIN. FT.	100
8" C/O	EACH	3
8" Head Wall	EACH	1
INFILTRATION BASIN MEDIA	CU. YD.	200
GEOTEXTILE FILTER	SQ. YD.	840
BLANKETS	SQ. YD.	6100
TRM	SQ. YD.	210
SEEDING	ACRE	1.3
SEED MIXTURE 33-261	POUND	70

NOTE: EXCAVATION AND COURSE FILTRATION AGGREGATE PAID SEPARATELY

NOTES:

1. ALL ELEVATIONS AND CONTOURS ARE TO FINISHED GRADE UNLESS OTHERWISE NOTED.
2. MAX SLOPE ON EMBANKMENTS IS TO BE 3:1.
3. COORDINATE FINAL RESTORATION WITH FILTRATION BASIN CONSTRUCTION.
4. CONTRACTOR TO ENSURE THAT THE FILTRATION BASIN IS NOT OVER COMPACTED DURING CONSTRUCTION.

SCALE 0 25 50 FEET

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ALAN OFFERMAN
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DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

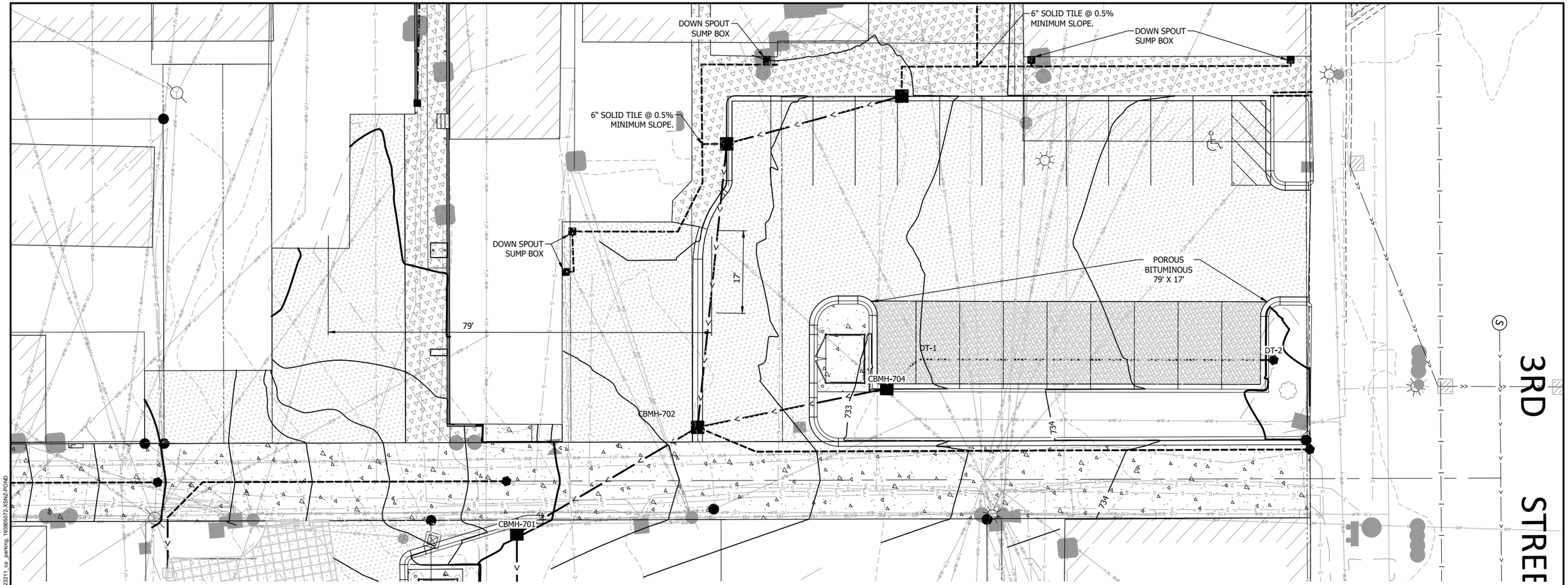
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

POND GRADING PLAN

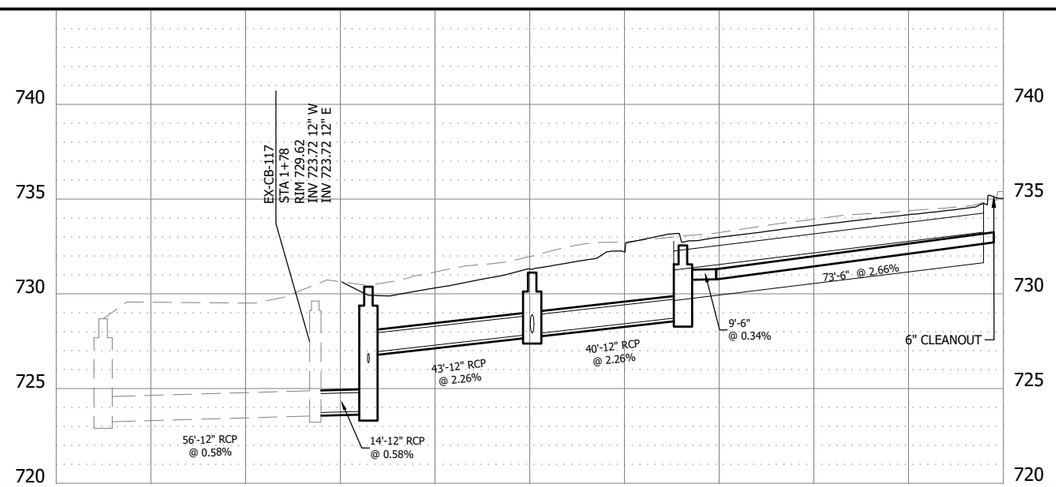
SHEET 216 OF 359

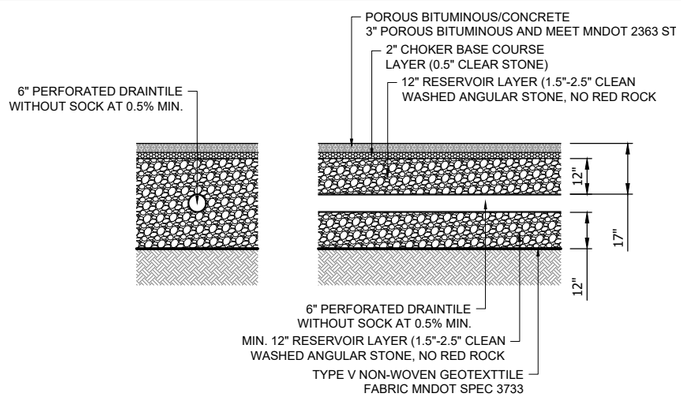
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2ND-3RD PARKING LOT
POROUS PAVEMENT

HORZ. SCALE 0 10 20 FEET





POROUS PAVEMENT - CROSS SECTION

NOT TO SCALE

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DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

PARKING LOTS BIORETENTION TRENCH

SHEET 217 OF 359

Date/Time: 3/4/2022, DR17
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DRAINAGE TABULATION: SP 1008-47, SP 196-010-017, SP 196-010-018 (T.H. 41)

N

FLOWS FROM	FLOWS TO	STRUCTURE LOCATION: ALIGN.	STATION (1)	OFFSET (FT) (1)		DRAINAGE STRUCTURES: TYPE	PLATE NUMBER	TOP OF CASTING ELEVATION	INVERT OUT ELEVATION	INVERT IN ELEVATION	PAY HEIGHT (2): DESIGN N EACH	48-4020 LIN FT	60-4020 LIN FT	72-4020 LIN FT	84-4020 LIN FT	108-4020 LIN FT	SPECIAL 1 EACH	SPECIAL 2 EACH	6" CLEANOUT EACH	CASTING ASSEMBLY TYPE	TRENCH DRAIN LIN FT	CONE TYPE (5)	CONNECT INTO EXISTING DRAINAGE STRUCTURE EACH	CONNECT TO EXISTING STORM SEWER EACH	ADJUST FRAME AND RING CASTING EACH	DESIGN 3006 RC PIPE: 12" CLASS V LIN FT	15" CLASS V LIN FT	18" CLASS V LIN FT	24" CLASS III LIN FT	27" CLASS III LIN FT	30" CLASS III LIN FT	36" CLASS III LIN FT	RC PIPE-ARCH SEWER: 36" CLASS IIIA LIN FT	PE PIPE SEWER: 6" PERF. LIN FT	PVC PIPE DRAIN: 6" LIN FT	8" LIN FT	8" FORCEMAIN LIN FT	12" LIN FT
41-424	41-423	TH41_NB	108+80.36	63.2	R	CBMH	4003B	734.89	731.35		1.0									B-9							58											
41-423	41-421	TH41_NB	109+38.74	63.0	R	CBMH	4005M	735.1	731.06	731.06		4.04								B-9							40											
41-421	41-420	TH41_NB	109+30.12	24.4	R	STMH	4005M	735.14	730.86	730.86			4.3							A-8D							34											
41-420	41-418	TH41_NB	109+64.30	16.5	R	CBMH	4005M	734.57	730.69	730.69		3.9								B-9							22											
41-418	41-416	TH41_NB	109+63.56	5.5	L	CBMH	4005M	734.99	730.56	730.56		4.4								B-9							34											
41-416	41-414	TH41_NB	109+62.43	39.5	L	CBMH	4005M	735.63	730.36	730.36		5.3								B-9							39											
41-414	41-412	TH41_NB	109+24.45	37.6	L	STMH	4005M	736.01	730.00	730.16			6.0							A-8D									58									
41-412	41-406	TH41_NB	108+66.41	32.3	L	CBMH	4005M	736.05	729.15	729.83			6.9							B-9		B							25									
41-406	41-404	TH41_NB	108+47.00	16.0	L	CBMH	4005M	735.80	729.07	729.07		6.7								B-9		B							31									
41-404	41-396	TH41_NB	108+15.93	16.0	L	CBMH	4005M	735.68	728.98	728.98			6.7							B-9		B							62									
41-396	41-394	TH41_NB	107+54.12	16.0	L	CBMH	4005M	735.40	728.80	728.80			6.6							B-9		B							31									
41-394	41-392	TH41_NB	107+22.93	16.0	L	CBMH	4005M	735.25	728.67	728.67		6.6								B-9		B							31									
41-392	41-390	TH41_NB	106+92.30	16.0	L	CBMH	4005M	735.11	728.55	728.55		6.6								B-9		B							31									
41-390	41-383	TH41_NB	106+60.93	15.9	L	CBMH	4005M	735.15	728.39	728.39			6.8							B-9		B							60									
41-383	41-382	TH41_NB	106+01.40	16.0	L	CBMH	4005M	734.78	728.06	728.06		6.7								B-9		B							21									
41-382	41-376	TH41_NB	105+79.97	16.0	L	CBMH	4005M	734.82	727.45	727.95				7.4						B-9		B									52						
41-376	41-372	TH41_NB	105+27.55	16.0	L	CBMH	4005M	735.12	727.24	727.24				7.9						B-9		B									43						
41-372	41-370	TH41_NB	104+84.60	16.0	L	CBMH	4005M	734.89	727.06	727.06				7.8						B-9		B									16						
41-370	41-365	TH41_NB	104+84.60	32.0	L	CBMH	4005M	735.09	727.00	727.00				8.1						B-9		B									54						
41-365	41-364	TH41_NB	104+30.49	32.0	L	CBMH	4005M	733.92	726.73	726.73				7.2						B-9		B									84						
41-364	41-358	TH41_NB	103+46.41	32.0	L	CBMH	4005M	731.70	725.58	725.58			6.1							B-9		B									147						
41-358	41-354	TH41_NB	101+99.43	40.0	L	CBMH	4005M	729.36	721.47	721.47			7.9							B-9		B									44						
41-354	41-350	TH41_NB	101+55.34	44.0	L	STMH	4005M	728.36	721.01	721.02				7.4						A-8D		B									53						
41-350	41-352	TH41_NB	101+10.26	16.0	L	CBMH	4005M	724.74	717.72	719.68		7.0								B-9		B									39						
41-352	41-346	TH41_NB	101+10.26	23.0	R	CBMH	4005M	723.22	716.46	716.46				6.8						B-9		B									56						
41-346	41-345	TH41_NB	100+54.60	22.9	R	CBMH	4005M	720.45	714.65	714.65			5.8							B-9											105						
41-345	41-340	TH41_NB	99+49.90	15.0	R	CBMH	4005M	716.38	711.23	711.23			5.1							B-9												130					
41-340	41-338	TH41_NB	98+20.35	15.0	R	CBMH	4005M	713.77	709.52	709.52			4.3							B-9												6					
41-338	41-334	TH41_NB	98+14.47	15.0	R	CBMH	4005M	713.85	709.44	709.44					4.4					B-9												29					
41-334	41-332	TH41_NB	98+12.03	14.1	L	CBMH	4005M	714.62	709.06	709.06			5.6							B-9											24						
41-332	41-306	TH41_NB	98+15.00	38.2	L	CBMH	4005M	714.67	708.82	708.82						5.8				B-9		B		1							106						
41-306	EX. 41-304 TAMS 2381533	TH41_NB	97+12.89	37.3	L	STMH	4005M	715.59	707.77	707.77				7.8						A-8D		B	1								24						
41-306.2	41-306	TH41_NB	97+23.50	61.1	L	SPCL3		715.01	712.49									1.0																	25			
41-313	41-311	TH41_NB	94+18.47	15.0	R	CBMH	4005M	723.86	720.07	720.32		3.8								B-9				1			16										
41-311	41-309	TH41_NB	94+18.67	1.0	L	CBMH	4005M	724.16	719.91	719.91		4.3								B-9							43										
41-309	41-307	TH41_NB	94+19.00	44.0	L	CBMH	4005M	723.92	719.48	719.48		4.4								B-9							130										
41-307	EX. 41-303 TAMS 2381502	TH41_NB	95+51.21	43.7	L	CBMH	4005M	720.74	716.88	716.88		3.9								B-9			1				22										
41-321	41-320	TH41_NB	97+75.14	48.1	R	CB	STO-6	713.00	709.42								1.0			CH1							28										
41-320	41-316	TH41_NB	97+45.23	53.1	R	CBMH	STO-5	713.43	709.29	709.29		4.1								CH1							48										
41-316	41-314	TH41_NB	97+06.27	23.0	R	CBMH	4005M	714.74	709.08	709.08		5.7								B-9							25										
41-314	41-310	TH41_NB	97+11.33	1.0	L	CBMH	4005M	715.06	708.96	708.96		6.1								B-9		B					30										
41-310	41-306	TH41_NB	97+13.76	30.8	L	CBMH	4005M	715.00	708.81	708.81		6.2								B-9		B					7										
41-318	41-316	TH41_NB	97+00.21	23.0	R	CB	4003B	714.89	710.70		1.0									B-9							6										
41-312	41-310	TH41_NB	97+08.01	31.2	L	CB	4003B	715.13	710.16		1.0									B-9							6										
41-328	EX. 41-330 TAMS 2381506	TH41_NB	97+49.97	86.8	L	CBMH	STO-5	713.21	707.80	707.80			5.4							CH1				2													
41-325	EX. 41-326 2381504	TH41_NB	97+84.04	86.0	L	CB	STO-6	713.33	709.38								1.0			CH1			1				23										
41-336	41-334	TH41_NB	98+18.04	14.3	L	CB	4003B	714.63	710.85		1.0									B-9							6										
41-341	41-343	TH41_NB	99+49.9	32.0	L	CB	4003B	717.65	713.90		1.0									B-9							16										
41-343	41-345	TH41_NB	99+49.9	16.0	L	CBMH	4005M	717.45	713.50	713.50		4.0								B-9							31										
41-345.3	41-345.2	TH41_NB	99+13.02	34.2	R	SPCL3		716.46	713.93									1.0																	31			
41-345.2	41-345	TH41_NB	99+43.61	34.2	R	SPCL3		717.18	713.32	713.32								1.0																	20			
41-342	41-344	TH41_NB	100+54.56	32.0	L	CB	4003B	722.98	717.90	720.44	1.0									B-9							16										
41-344	41-346	TH41_NB	100+54.57	16.0	L	CBMH	4005M	722.39	717.42	717.42		5.0								B-9							39										
41-342.2	41-342	TH41_NB	100+47.44	45.6	L	SPCL2		722.97	720.75									1.0																	15			
41-346.2	41-346	TH41_NB	100+45.99	29.5	R	SPCL2		720.39	718.00									1.0																	11			
41-362	41-360	TH41_NB	101+99.42	15.0	R	CB	4003B	726.63	722.66		1.0									B-9							20										
41-360	41-358	TH41_NB	101+99.43	5.0	L	CBMH	4005M	727.60	722.59	722.59		5.0								B-9							35										

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(6) CORE DRILL PIPE INLET CONNECTIONS INTO STRUCTURE.
(7) STEPS REQUIRED ON ALL STRUCTURES DEEPER THAN 4 FT.

Stantec
733 Marquette Avenue, Suite 1000
www.stantec.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE TABULATIONS

SHEET 218 OF 359

Date/Time: 3/7/2022, 8:01:18 AM
Drawing: C:\Users\...\Drainage Tabulations.dwg
Xrefs: ...

DRAINAGE TABULATION: SP 1008-47, SP 196-010-017, SP 196-010-018 (T.H. 41)

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FLOWS FROM	FLOWS TO	STRUCTURE LOCATION: ALIGN.	STATION (1)	OFFSET (FT) (1)		DRAINAGE STRUCTURES: TYPE	PLATE NUMBER	TOP OF CASTING ELEVATION	INVERT OUT ELEVATION	INVERT IN ELEVATION	DESIGN N	PAY HEIGHT (2) 48-4020	60-4020	72-4020	84-4020	108-4020	SPECIAL 1	SPECIAL 2	6" CLEANOUT	CASTING ASSEMBLY TYPE	TRENCH DRAIN	CONE TYPE (5)	CONNECT INTO EXISTING DRAINAGE STRUCTURE	CONNECT TO EXISTING STORM SEWER	ADJUST FRAME AND RING CASTING	DESIGN 3006 RC PIPE: 12" CLASS V	15" CLASS V	18" CLASS V	24" CLASS III	27" CLASS III	30" CLASS III	36" CLASS III	RC PIPE-ARCH SEWER: 36" CLASS IIIA	PE PIPE SEWER: 6" PERF.	PVC PIPE DRAIN: 6"	8"	8" FORCEMAIN	12"
											EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	EACH	EACH		LIN FT		EACH	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT
41-368.3	41-368.2	TH41_NB	103+07.35	104.2	R	SPCL2		730.30	728.20									1.0																		
41-368.2	41-368	TH41_NB	103+09.51	15.0	R	STMH		729.37	726.11	726.84		3.3								A-8D							37									
41-368	41-366	TH41_NB	103+46.41	15.0	R	CB	4003B	730.50	725.92	725.92	1.0									B-9							20									
41-366	41-364	TH41_NB	103+46.41	5.0	L	CBMH	4005M	731.28	752.82	752.82		21.5								B-9							27									
41-364.2	41-364	TH41_NB	103+67.53	46.0	L	COUT		733.29	730.73										1.0	COUT														25		
41-367	41-365	TH41_NB	104+30.49	21.0	R	CB	4003B	732.76	728.87	730.79	1.0									B-9							53									
41-365.2	41-365	TH41_NB	104+31.49	45.6	L	SPCL2		734.91	732.32									1.0																14		
41-367.2	41-367	TH41_NB	104+30.49	29.0	R	SPCL2		733.17	730.95									1.0																8		
41-379	41-378	TH41_NB	105+16.72	47.9	R	CB	STO-6	733.54	730.16								1.0			CH1							28									
41-378	41-376	TH41_NB	105+44.77	45.0	R	CBMH	STO-5	733.78	729.88	729.88		3.9								CH1							63									
41-380	41-376	TH41_NB	105+44.11	61.4	L	CBMH	STO-5	735.86	730.65	731.05		5.2								CH1				1						48						
41-384	41-382	TH41_NB	105+91.17	15.0	R	CB	4003B	733.88	730.41		1.0									B-9							33									
41-388.2	41-388	TH41_NB	106+40.94	50.7	L	SPCL3		736.50	733.00									1.0																40		
41-391	41-390	TH41_NB	106+60.93	15.0	R	CB	4003B	734.12	730.50		1.0									B-9							31									
41-393.2	41-393	TH41_NB	106+98.30	32.0	L	CB	4003B	735.34	731.50		1.0									B-9							6									
41-393	41-392	TH41_NB	106+92.3	32.0	L	CBMH	4005M	735.31	731.44	731.44		3.9								B-9							16									
41-400	41-396	TH41_NB	107+54.12	32.0	L	CB	4003B	735.60	732.10		1.0									B-9							16									
41-398	41-396	TH41_NB	107+54.12	15.0	R	CB	4003B	734.58	730.90		1.0									B-9							31									
41-413	41-414	TH41_NB	109+26.71	70.1	L	STMH	4005M	735.96	730.34	730.82		5.6								A-8D		B		1				33								
41-408	41-404	TH41_NB	108+19.61	23.0	R	CB	4003B	734.85	730.90		1.0									B-9							39									
41-223	41-222	TH41_NB	110+64.54	15.0	R	CB	4003B	733.09	729.08	729.33	1.0									B-9							47									
41-222	41-220	TH41_NB	111+11.38	15.0	R	CBMH	4005M	732.03	728.38	728.38			3.7							B-9							25									
41-220	41-218	TH41_NB	111+10.53	10.4	L	CBMH	4005M	732.67	727.99	727.99		4.7								B-9							31									
41-218	41-212	TH41_NB	111+09.50	41.4	L	STMH	4005M	732.20	727.53	727.53		4.7								B-9							134									
41-212	41-200	TH41_NB	112+43.50	48.3	L	CBMH	4005M	729.49	725.44	725.78		4.1								B-9								32								
41-200	41-99	TH41_NB	112+75.72	48.5	L	STMH	4005M	729.49	724.37	725.12			5.1							A-8D										65						
41-99		TH41_NB	112+78.38	16.7	R	STMH	4005M	729.24	724.04	724.04		5.2								A-8D				1												
41-223.3	41-223.2	TH41_NB	110+14.65	29.9	R	SPCL2	4021F	734.83	730.59		1.0									SPCL2							51									
41-223.2	41-223	TH41_NB	110+64.71	37.7	R	SPCL2	4021F	734.15	729.59	729.59		4.6								SPCL2							23									
41-222.2	41-222	TH41_NB	111+03.92	36.9	R	SPCL2	4021F	733.17	728.88		1.0									SPCL2							23									
41-222.3	41-222	TH41_NB	111+32.64	25.6	R	SPCL3		732.48	729.89									1.0																24		
41-219	41-218	TH41_NB	110+68.46	40.0	L	CB	4003B	733.35	729.60	730.67	1.0									B-9							41									
41-219.4	41-219.3	TH41_NB	110+08.27	45.7	L	SPCL3		735.44	733.04									1.0																31		
41-219.3	41-219.2	TH41_NB	110+38.96	46.7	L	SPCL3		734.81	732.43	732.43								1.0																29		
41-219.2	41-219	TH41_NB	110+68.21	48.3	L	SPCL3		734.25	730.84	731.84								1.0																8		
41-218.3	41-218.2	TH41_NB	111+32.22	50.8	L	SPCL3		732.36	729.94									1.0																23		
41-218.2	41-218	TH41_NB	111+09.41	49.9	L	COUT		732.94	729.48	729.48									1.0	COUT														8		
41-217	41-216	TH41_NB	111+71.64	15.0	R	CB	4003B	730.55	726.44		1.0									B-9							60									
41-216	41-99	TH41_NB	112+31.93	14.6	R	CBMH	4005M	729.44	725.35	725.35		4.1								B-9							46									
41-210	41-205	TH41_NB	114+12.58	14.5	R	CBMH	4005M	728.24	725.32	725.32		2.9								B-9							66									
41-208	41-210	TH41_NB	114+04.62	13.7	R	CB	4003B	728.30	725.35		1.0									B-9							8									
41-206	41-205	TH41_NB	114+06.47	115.8	L	BEEHIVE	4003B	729.48	725.43		1.0									CH2							67									
41-205	41-204	TH41_NB	114+23.04	51.0	L	CBMH	4005M	729.07	725.10	725.10		4.0								B-9							60									
41-204	41-202	TH41_NB	113+63.08	51.0	L	CB	4003B	728.72	724.80	724.80		3.9								B-9							6									
41-202	41-200	TH41_NB	113+57.08	51.0	L	CBMH	4005M	728.72	724.77	724.77		4.0								B-9								80								
41-104	41-102	TH41_NB	115+05.87	23.8	R	CB	4003B	729.25	725.44	725.44	1.0									B-9							82									
41-526	41-520	TH41_NB	121+51.60	38.6	L	STMH	4005M	734.80	728.00	728.00		6.8								A-8D		B		1						9						
41-520	41-510	TH41_NB	121+44.46	44.0	L	CBMH	4005M	734.59	727.92	727.92			6.7							B-9		B								202						
41-510	41-509	TH41_NB	119+50.78	55.2	L	CBMH	4005M	732.86	726.41	726.41				6.5						B-9		B		1						78						
41-509	41-508	TH41_NB	118+76.40	59.1	L	CBMH	4005M	731.93	725.82	725.82			6.1							B-9		B								97						
41-508	41-504	TH41_NB	117+82.49	61.0	L	CBMH	4005M	730.33	725.33	725.33		5.0								B-9										38						
41-504	41-502	TH41_NB	117+44.52	62.0	L	CBMH	4005M	729.84	725.05	725.14				4.8						B-9											47						
41-502	41-500	TH41_NB	117+40.20	15.0	L	CBMH	4005M	730.33	724.81	724.81		5.5								B-9											42						
41-500	61-216	TH41_NB	117+43.90	26.9	R	CBMH	4005M	729.39	724.60	724.60				4.8						B-9											55						
41-107.2	41-107.1	TH41_NB	116+30.46	86.7	L	CBMH	4005M	730.12	726.11	726.36		4.0								B-9				1			6									
41-107.1	41-106	TH41_NB	116+27.82	81.2	L	CBMH	4005M	730.12	726.06	726.06		4.1								B-9							46									
41-106	41-102	TH41_NB	115+90.24	53.2	L	CBMH	4005M	730.35	723.93	725.68					6.4					B-9		B											77				

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE TABULATIONS

SHEET 219 OF 359

Plotted: 17/2022 DRI9
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DRAINAGE TABULATION: SP 1008-47, SP 196-010-017, SP 196-010-018 (T.H. 41)

N

	FLOWS FROM	FLOWS TO	STRUCTURE LOCATION ALIGN.	STATION (1)	OFFSET (FT) (1)		DRAINAGE STRUCTURES TYPE	PLATE NUMBER	TOP OF CASTING ELEVATION	INVERT OUT ELEVATION	INVERT IN ELEVATION	DESIGN N	48-4020	60-4020	72-4020	84-4020	108-4020	SPECIAL 1	SPECIAL 2	6" CLEANOUT	CASTING ASSEMBLY TYPE	TRENCH DRAIN	CONE TYPE (5)	CONNECT INTO EXISTING DRAINAGE STRUCTURE	CONNECT TO EXISTING STORM SEWER	ADJUST FRAME AND RING CASTING	DESIGN 3006 RC PIPE 12" CLASS V	15" CLASS V	18" CLASS V	24" CLASS III	27" CLASS III	30" CLASS III	36" CLASS III	RC PIPE-ARCH SEWER 36" CLASS IIIA	PE PIPE SEWER 6" PERF.	PVC PIPE DRAIN 6"	8"	8" FORCEMAIN	12"
												PAY HEIGHT (2)																											
												EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	EACH	EACH		LIN FT		EACH	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT
	41-102	41-101	TH41_NB	115+87.89	24.3	R	CBMH	4005M	729.70	723.61	723.62			6.1							B-9					37												
	41-101	41-100	TH41_NB	116+23.90	31.0	R	CBMH	4005M	729.82	723.52	723.52			6.3							B-9				1									23					
	41-100		TH41_NB	116+24.91	54.2	R	CBMH	4005M	729.12	723.43	723.43			5.7							B-9																	
(3)	41-510	41-512	TH41_NB	119+50.78	55.2	L	CBMH	4005M	732.86	726.41	726.41				6.5						B-9										46								
	41-512	41-514	TH41_NB	119+48.26	9.3	L	CBMH	4005M	732.02	725.53	725.53		6.5								B-9		B							36								
	41-514		TH41_NB	119+46.62	26.5	R	CBMH	4005M	730.95	724.85	724.85			6.1							B-9		B		1							4							
	41-516	41-514	TH41_NB	118+43.84	23.7	R	CB	4003B	730.10	726.50		1.0									B-9							101										
	41-518	41-514	TH41_NB	119+99.32	24.0	R	CB	4003B	731.17	728.00		1.0									B-9							52										
	41-524	41-522	TH41_NB	121+43.49	23.9	R	CB	4003B	732.76	729.34		1.0									B-9							33										
	41-522	41-520	TH41_NB	121+43.98	9.0	L	CBMH	4005M	733.93	729.02	729.02		4.9								B-9							35										
	EX. 41-112	41-111	TR_UNDR	30+68.91	2.1	L	EX.		729.70	725.54	725.54													1		1												
	41-111	41-111A	TR_UNDR	30+76.99	8.8	L	STMH	4005M	730.32	725.50	725.50		4.8								A-8D													162				
	41-111A	41-110	TR_UNDR	32+39.95	10.0	L	STMH	4005M	730.27	724.87	724.87		5.4								A-8D													34				
	41-110	41-108	TR_UNDR	32+71.83	20.5	L	BEEHIVE	STO-3	729.11	724.74	724.74		4.4								CH2													85				
	41-108	41-106	TH41_NB	114+75.04	50.9	L	CBMH	4005M	729.59	724.40	724.40				5.2						B-9													115				
	41-114	41-115	TR_UNDR	33+10.45	2.9	L	STMH	4003B	718.91	716.39		1.0										10														24			
(6)	41-115	41-116	TR_UNDR	33+10.36	20.7	R	STMH	4003B	729.94	716.15	716.15	1.0									A-8D														164			
(6)	41-116	41-118	TR_UNDR	34+74.23	20.7	R	STMH	4003B	729.19	715.33	715.33	1.0									A-8D																	23
	41-118	41-117	TR_UNDR	34+74.23	2.5	L	STMH	4003B	718.08	715.22	715.22	1.0										10																	237
	41-117	LIFT STATION	TR_UNDR	37+10.93	8.9	R	STMH	4005M	727.73	714.01	714.01		13.7								A-8D																	31
	EX. 41-308	EX. 41-301	TH41_NB	97+37.5	34.5	L	STMH																				1											
	EX. 41-330	EX.41-326	TH41_NB	97+47.5	46.3	L	STMH																				1											
	EX. 41-326	2381503	TH41_NB	97+87.75	49.5	L	STMH																				1											
	2381503	EX. 41-308	TH41_NB	97+87.75	39.3	L	STMH																				1											
	2381498	41-313	TH41_NB	94+34.75	38.5	R	STMH															ADA					1											
	EX. 41-303	EX. 2381501	TH41_NB	94+85.75	49.0	L	STMH																				1											
	EX.41-304	EX. 41-303	TH41_NB	96+86.75	22.0	L	STMH																				1											
	EX. 41-112	41-111	TH41_NB																																			
	LIFT STATION	61-118	TR_UNDR	36+31.38	31.7	R			728.21		713.89																										50	
	PARKING LOTS																																					
	CB-606	CBMH-604	C-4th-5th_Alley	2+86.65	26.6	R	CB	STO-6	732.14	729.18								1			CH-1							12										
	CB-604.3	CBMH-604.2	C-4th-5th_Alley	1+82.80	8.014	L	CB	STO-6	735.23	731.25								1			CH-1							63										
	CBMH-604.2	CBMH-604	C-4th-5th_Alley	2+41.54	15	R	CBMH	STO-5	733.55	728.72	728.72		4.8								CH-1							45										
	CBMH-604	CBMH-602	C-4th-5th_Alley	2+86.65	15	R	CBMH	STO-5	732.06	726.92	726.92		5.1								CH-1							43										
	CBMH-601	CBMH-530 STUB	C-4th-5th_Alley	3+27.52	43	R	CBMH	STO-5	731.01	724.6	724.6		6.4								CH-1				1			20										
	CBMH-605	CBMH-604	C-4th-5th_Alley	2+89.29	5	L	CB	STO-6	732.11	728.11								1			CH-1							20										
	CBMH-602	CBMH-601	C-4th-5th_Alley	3+27.50	28	R	CBMH	STO-5	730.64	725.2	725.2		5.4								CH-1							15										
	CBMH-603	CBMH-601	C-4th-5th_Alley	3+27.52	65.6	R	CB	STO-6	731.46	727.46								1			CH-1													23				
	DT-2	CBMH-704	C-2nd-3rd_Alley	3+34.20	24.5	L	COUT	SER-4		732.73										1	COUT															82		
	CBMH-704	CBMH-702	C-2nd-3rd_Alley	2+54.47	18.8	L	CB	STO-6	732.56	728.77	730.75							1			CH-1							40										
	CBMH-702	CBMH-701	C-2nd-3rd_Alley	2+15.47	11	L	CBMH	STO-5	731.12	724.78	724.78		6.3								CH-1	17						43									128		
	CBMH-701	EX-CB-117	C-2nd-3rd_Alley	1+78.16	10.9	L	CBMH	STO-5	730.37	726.89	723.8		3.5								CH-1			1				14										
	CBMH-705	CBMH-703	C-2nd-3rd_Alley	2+57.76	79.1	L	CB	STO-6	732.23	728.4								1	3		CH-1							37									102		
	CBMH-703	CBMH-702	C-2nd-3rd_Alley	2+21.66	69.3	L	CBMH	STO-5	731.63	728.21	728.21		3.4						3		CH-1							59									88		
	CB-502	CBMH-501	STORM-501-502	0+71.53	0.01	R	CB	STO-6	726.98	724								1			CH-1							47										
	CBMH-501	EX-CBMH-502	STORM-501-503	0+24.58	0	R	CBMH	STO-5	726.79	723.63	723.63		3.2								CH-1				1													
	CB-802	CBMH-801	C-CL-NewNorthParlinglot	1+33.68	0	R	CB	STO-6	726.53	723.99								1			CH-1							43										
	CBMH-801		C-CL-NewNorthParlinglot	1+66.75	27.349	R	CBMH	STO-5	726.45		723.78		2.7								CH-1				1													
	41-103	41-104	TH41_NB	115+31.57	76.4	R	CB	STO-6	728.5	725.77								1			CH-1							58										
	61-122A	61-122	CSAH61_EB	21+01.81	43.7	R	CB	STO-9	727.85	724.87								1			STO-9								20								22	
	61-120B	61-120A	CSAH61_EB	22+42.70	62.86	R	CB	STO-6	727.71	724.76								1			CH-1							57										
	61-120A	61-120	CSAH61_EB	21+92.80	74.99	R	CBMH	STO-5	728.09	724.3	724.3		3.8						1		CH-1							51										
		EX-CB-116																		1		17														73		
		EX. 2ND STREET TRENCH DRAIN	00+82																	1		16														64		
	SP 196-010-017 TOTALS											30	299	123	88	11	6	14	21	5		70		5	15	8	259	2648	165	903	65	1402	137	165	82	878	188	50	291

GENERAL NOTE:
(1) STATION AND OFFSET AT CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
(2) STRUCTURE HEIGHT ASSUMED TO INCLUDE 2-2" CONCRETE RINGS AND A 9" CASTING.
(3) STRUCTURE INFORMATION LISTED PREVIOUSLY WITHIN TABULATION.
(4) NDS 12"x12"x12-15/16" CATCH BASIN (PART NO. 1200) OR APPROVED EQUAL.
(5) DESIGN 4020 STRUCTURES WITHOUT A SPECIFIED CONE TYPE SHALL USE A TOP SLAB SECTION PER STANDARD PLATE NO. 4020J.
(6) CORE DRILL PIPE INLET CONNECTIONS INTO STRUCTURE.
(7) STEPS REQUIRED ON ALL STRUCTURES DEEPER THAN 4 FT.

Date/Time: 3/9/2022, 12:00:00 PM
Drawing: C:\Civil_sht_b_infra01\dms80398\cp123211_dt3.dwg
Xrefs: cp123211_bdr

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REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE TABULATIONS

SHEET 220 OF 359

DRAINAGE TABULATION: SP 169-020-014 (C.S.A.H. 61)

N

	STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES																	RC PIPE SEWER DESIGN 3006						RC PIPE-ARCH SEWER	APRONS				
	FLOWS FROM	FLOWS TO	ALIGN.	STATION (1)	OFFSET (FT) (1)		TYPE	PLATE NUMBER	TOP OF CASTING ELEVATION	INVERT OUT ELEVATION	INVERT IN ELEVATION	DESIGN N	PAY HEIGHT (2) 48-4020	60-4020	72-4020	84-4020	96-4020	108-4020	SPECIAL 1	CASTING ASSEMBLY TYPE	CONE TYPE (4)	CONNECT TO EXISTING DRAINAGE STRUCTURE	CONNECT TO EXISTING STORM SEWER	RECONSTRUCT DRAINAGE STRUCTURE	ADJUST FRAME AND RING CASTING	15" CLASS V	18" CLASS V	24" CLASS III	30" CLASS III	36" CLASS III	42" CLASS III	65" CLASS IIA	15"	24"	65"x40" ARCH	GEOTEXTILE FILTER TYPE 7	RANDOM RIP RAP CL III (6)
												EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH			EACH	EACH	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	SY	CU YD
(3)	41-100	61-122	CSAH61_EB	116+24.91	54.2	R	CBMH	4005M	729.12	723.43	723.43			5.7						B-9									50						
	61-122	61-120	CSAH61_EB	20+97.31	23.9	R	CBMH	4005M	729.04	723.24	723.24			5.8						B-9			1						93						
	61-120	61-118	CSAH61_EB	21+87.03	24.0	R	CBMH	4005M	728.59	722.89	722.89			5.7						B-9									121						
	61-118	61-116	CSAH61_EB	23+02.38	34.6	R	CBMH	4005M	727.68	722.42	722.42			5.3						B-9									20						
	61-116	61-115	CSAH61_EB	23+21.34	37.8	R	STMH	4005M	728.04	722.34	722.34							5.7		A-8D			1							151					
	61-115	61-113	CSAH61_EB	24+63.21	90.3	R	STMH	4005M	728.03	721.89	721.89						10.1			A-8D										124					
(5)	61-113	61-109	CSAH61_EB	25+81.50	92.5	R	STMH	4005M	727.24	721.52	721.52						5.7			A-8D										267					
	61-109	61-103	CSAH61_EB	28+50.26	97.6	R	STMH	4005M	727.42	720.72	720.72						6.7			A-8D										221					
	61-103		CSAH61_EB	30+81.17	101.0	R	FES	3110G			720.02																						1	14	20
	61-218	61-217	CSAH61_EB	19+11.18	43.2	L	STMH	4005M	730.31	725.47	726.47			4.8						A-8D			1					13							
	61-217	41-504	CSAH61_EB	19+09.89	56.0	L	CBMH	4005M	729.84	725.37	725.37		4.5							B-9								38							
	61-216T	61-216	CSAH61_EB	20+65.10	44.9	L	STMH	4005M	729.42	723.44	723.99		6.0							A-8D			1					9							
	61-216	61-215	CSAH61_EB	20+64.89	53.7	L	CBMH	4005M	729.01	724.34	724.34		4.7							A-8D								58							
	61-215	61-214	CSAH61_EB	21+25.10	53.6	L	CBMH	4005M	728.75	724.03	724.03		4.7							B-9								104							
	61-214	61-212	CSAH61_EB	22+38.38	48.7	L	CBMH	4005M	728.43	723.47	723.47		5.0							B-9								79							
	61-212	61-207	CSAH61_EB	23+24.43	54.1	L	CBMH	4005M	727.70	723.04	723.04		4.7							B-9								35							
	61-210	61-208	CSAH61_EB	23+54.95	78.5	L	CBMH	STO-5	727.01	723.46	723.46		3.5							CH1			1			14									
	61-208	61-207	CSAH61_EB	23+65.71	69.1	L	STMH	STO-1	727.55	723.21	723.21				4.3					CH3			1					15							
	61-207	61-116	CSAH61_EB	23+59.85	55.2	L	STMH	4005M	727.65	722.85	723.06						4.8			A-8D									101						
	EX. 61-312	EX. 61-310	CSAH61_EB	24+39.18	86.0	L	STMH	-	728.01	-	-														1										
	EX. 61-310	EX. 61-308	CSAH61_EB	25.02.72	59.6	L	STMH	-	728.02	-	-														1										
	EX. 61-308	EX. 61-306	CSAH61_EB	26+01.83	51.2	L	STMH	-	727.53	-	-									A-8D				1	1										
	EX. 61-306	EX. 61-304	CSAH61_EB	26+55.05	56.3	L	STMH	-	727.58	-	-									A-8D				1	1										
	EX. 61-304	EX. 61-302	CSAH61_EB	27+39.22	52.6	L	STMH	-	727.84	-	-									B-9				1	1						57				
	EX. 61-302	EX. 61-300	CSAH61_EB	28+70.54	55.2	L	STMH	-	727.75	-	-														1										
	EX. 61-300		CSAH61_EB	29+61.75	66.4	L	STMH	-	726.80	-	-														1										
	61-114	61-112	CSAH61_EB	24+49.17	24.0	R	CB	4003B	727.00	723.63		1.0								B-9						6									
	61-112	61-110	CSAH61_EB	24+55.17	24.0	R	CBMH	4005M	727.00	723.57	723.57		3.4							B-9							249								
	61-110	61-108	CSAH61_EB	27+02.21	24.0	R	CBMH	4005M	726.70	722.75	722.75		8.0							B-9							6								
	61-206	61-112	CSAH61_EB	24+54.75	54.0	L	CB	4003B	727.08	723.82		1.0								B-9						78									
	61-202	61-200	CSAH61_EB	26+68.33	45.7	L	CB	4003B	726.70	723.04		1.0								B-9						6									
	61-200	61-110	CSAH61_EB	26+74.29	45.4	L	CBMH	4005M	726.71	722.98	722.98		3.7							B-9						75									
	61-110	61-107	CSAH61_EB	27+02.21	24.0	R	CBMH	4005M	726.70	722.73	722.73			4.0						B-9								26							
	61-107		CSAH61_EB	27+01.15	50.2	R	FES	3100G			722.60																						1		5	8
	61-104	61-101	CSAH61_EB	29+35.08	45.5	L	CB	4003B	726.94	722.95		1.0								B-9						68									
(5)	61-101	61-99	CSAH61_EB	29+46.04	24.0	R	CBMH	4005M	727.00	722.72	722.72		8.3							B-9						29									
	61-99		CSAH61_EB	29+34.11	49.9	R	FES	3100G			722.60																						1		3	4
	61-106	61-101	CSAH61_EB	29+40.04	24.0	R	CB	4003B	727.00	722.78		1.0								B-9						6									
	FES 61-B2	FES 61-B3	CSAH61_EB	29+69.03	62.7	R	FES	3110G		722.60																		104					1		13	19
	FES 61-B3		CSAH61_EB	30+75.25	92.9	R	FES	3110G			721.00																						1		13	19
	SP 169-020-014 TOTALS											5	56	31	4		27	6	0				6	3	7	282	255	145	336	385	57	763	1	3	1	48	70

GENERAL NOTE:
(1) STATION AND OFFSET AT CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
(2) STRUCTURE HEIGHT ASSUMED TO INCLUDE 2-2" CONCRETE RINGS AND A 9" CASTING
(3) STRUCTURE INFORMATION LISTED PREVIOUSLY WITHIN TABULATION
(4) DESIGN 4020 STRUCTURES WITHOUT A SPECIFIED CONE TYPE SHALL USE A TOP SLAB SECTION PER STANDARD PLATE NO. 4020J
(5) 3' SUMP
(6) ITEM INCLUDES GEOTEXTTILE FILTER TYPE 7

Plotted: Date/Time: 3/17/2022, DRP1
Drawing Name: C:\Users\dpeterson_sh_infra01\dms80398\cp123211_dt3.dwg
Xref: cp123211_bdr

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REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED MRR
DRAWN JLT/PJW
CHECKED MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
DRAINAGE TABULATIONS

SHEET 221 OF 359

CASTING ASSEMBLY SUMMARY					M
ASSEMBLY	LOCATION	TYPE	CASTING NUMBER	STD. PLATE	QUANTITY
B-9 (1)	CATCH BASIN	FRAME	806	4125D	108
		COVER	816	4154B	
A-8D	STORM MANHOLE	FRAME	700-7	4101D	24
		COVER	716	4110F	
A-8D	SANITARY MANHOLE	NEENAH R1642-B OR APPROVED EQUAL		SAN-1	13
CH1 (1)	CATCH BASIN	NEENAH R3067-V OR APPROVED EQUAL		STO-6	28
ADA	CATCH BASIN	FRAME	805	4155A	1
		COVER	817		
CH2	BEEHIVE CATCH BASIN	NEENAH R4341-A OR APPROVED EQUAL		STO-9	3
CH3	STORM MANHOLE	NEENAH R1642-B OR APPROVED EQUAL		STO-1	1
SPCL2	CATCH BASIN	FRAME	790-2	4021F	3
		COVER	716	4110F	
COUT	SUMP DRAIN CLEANOUT	FORD A-1 WITH STORM LID OR APPROVED EQUAL		SER-4	3
CASTING ASSEMBLY SPECIAL	GATE VALVE CASTING	VESTAL RMR-18 WITH WATER LID OR APPROVED EQUAL		-	-
CASTING ASSEMBLY SPECIAL 1	SUMP DRAIN CLEANOUT	FORD A-1 WITH SANITARY LID OR APPROVED EQUAL		-	-

NOTE: (1) THE TOTAL INCLUDES (59) CATCH BASIN CASTINGS THAT ARE PAID FOR AS PART OF (2506) CONSTRUCT DRAINAGE STRUCTURE DESIGN N AND (2506) CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1 AND ARE NOT INCLUDED IN THE TOTAL IN THE STATEMENT OF ESTIMATED QUANTITIES.

Plot Date: 3/17/2022 - DP22
Drawing Name: C:\Data_stn_bh_infra01\dms8039\sp123211_dd3.dwg
Xrefs: sp123211_bdr

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

DRAINAGE TABULATIONS

SHEET 222 OF 359

N WALNUT ST

CHASKA BLVD (CSAH 61)

61-118

INV. 10" FM
= 722.50

46'-10" FORCEMAIN

INV. 10" FM
= 724.75

7' DIA LIFT VALVE VAULT

LIGHT/ANTENNA POLE

12.0'

11.3'

4.0'

2.5'

4.0'

3.0'

15' C-C

6'-0" x 2'-6" x 9" CONCRETE BASE
FOR CONTROL PANEL.
SEE DETAIL C/LS6.

4" THICK CONCRETE SIDEWALK

CURB AND GUTTER, TYP.
SEE CIVIL

7' DIA LIFT STATION WET WELL

728

728

SCALE 0 5 10 FEET

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ERIC S. LEMBKE
LIC. NO. 42748 DATE 03-04-2022

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DRAWN	JLT/PJW
CHECKED	MRL

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S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIFT STATION SITE PLAN

SHEET 223 OF 359

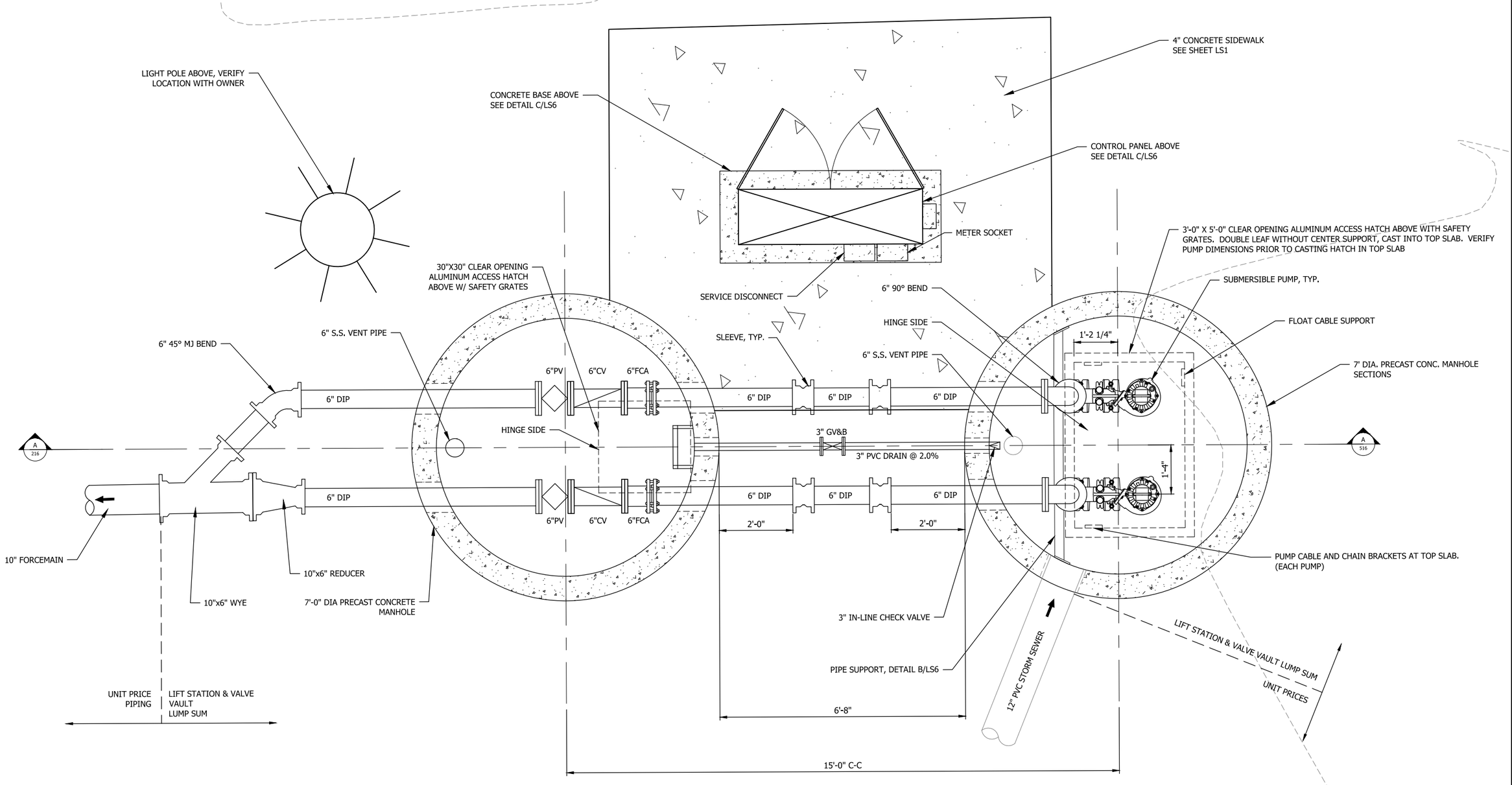
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Xrefs: cd123211_STORM, cd123211_cp, cd123211_erw, cp123211_bdr-LS, cd123211_ut_top, cd123211_SAN-WM, cd123211_ut_Private, cd123211_top

NOTE:

DIP PIPES SHALL BE COATED WITH POLYBOND PLUS, PROTECTCO 401 OR APPROVED EQUAL. POLYWRAP ALL BURIED DIP PIPES.

VALVE MANHOLE

TH 41 UNDERPASS STORM STATION



A LIFT STATION PLAN

SCALE 0 3 6 FEET

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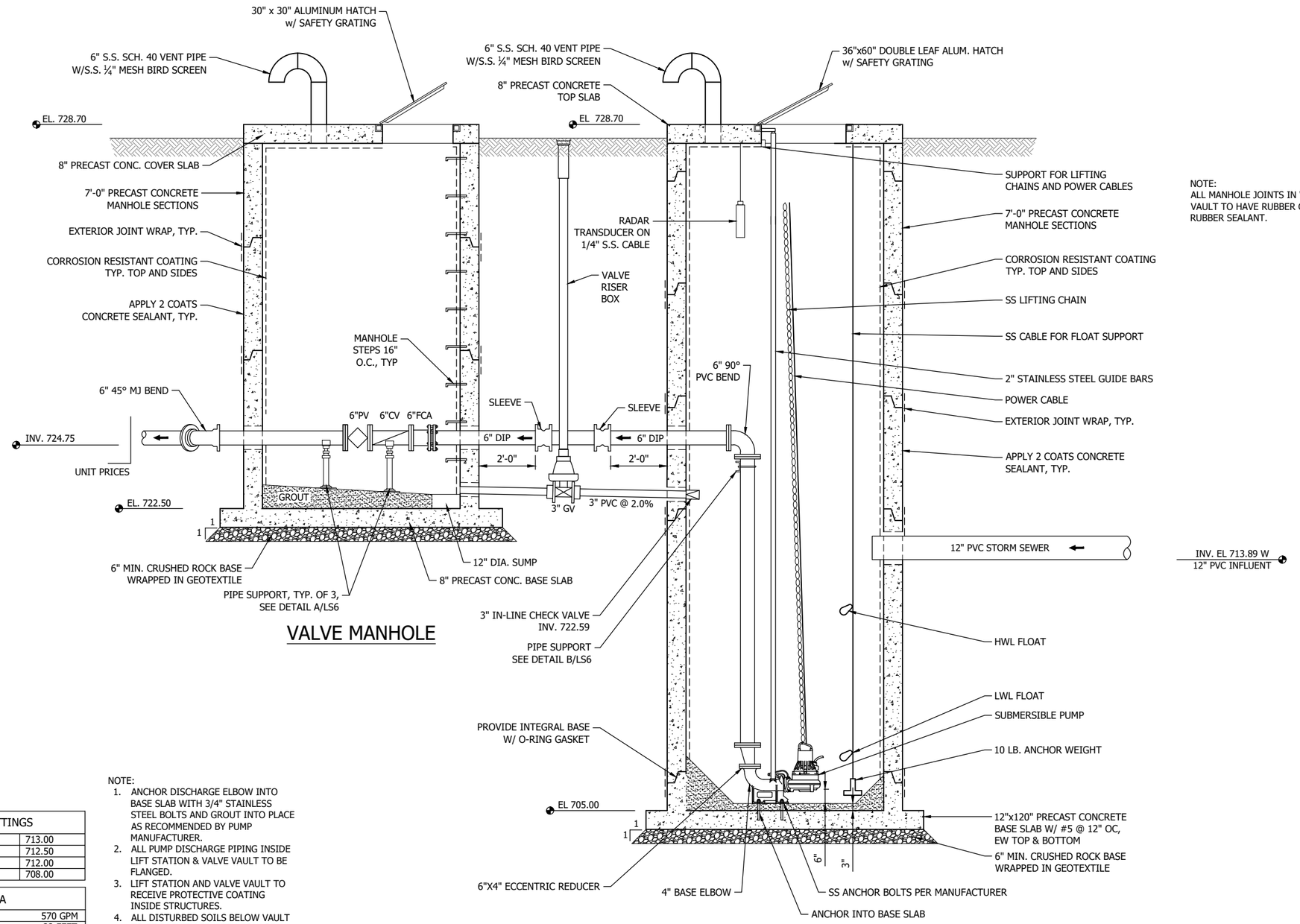
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S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIFT STATION PLAN

SHEET 224 OF 359

Plotted: 01/07/2022 - 1:52pm
Drawing: C:\civil_projects\mn_nfra01\dms80398\cp123211_ls2.dwg
Xrefs: cd_123211_STORM_cp123211_bdr



VALVE MANHOLE

NOTE:
ALL MANHOLE JOINTS IN WET WELL AND VALVE VAULT TO HAVE RUBBER GASKETS OR BUTYL RUBBER SEALANT.

LIFT STATION

PUMP CONTROL SETTINGS	
HWL ALARM	713.00
LAG ON	712.50
LEAD ON	712.00
PUMPS OFF	708.00

STATION DATA	
PUMP CAPACITY (EACH)	570 GPM
PUMP HEAD (TDH)	22 FEET
MOTOR HORSEPOWER (MAX)	X-PROOF, 5.5 HP
MOTOR SPEED	1800 RPM

NOTE:
1. ANCHOR DISCHARGE ELBOW INTO BASE SLAB WITH 3/4" STAINLESS STEEL BOLTS AND GROUT INTO PLACE AS RECOMMENDED BY PUMP MANUFACTURER.
2. ALL PUMP DISCHARGE PIPING INSIDE LIFT STATION & VALVE VAULT TO BE FLANGED.
3. LIFT STATION AND VALVE VAULT TO RECEIVE PROTECTIVE COATING INSIDE STRUCTURES.
4. ALL DISTURBED SOILS BELOW VAULT TO BE BACKFILLED WITH COURSE FILTER AGGREGATE AND COMPACTED TO 100% STANDARD DENSITY.

(A) LIFT STATION SECTION

SCALE 0 2 4 FEET

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIFT STATION SECTION

SHEET 225 OF 359

Plotted: 03/16/2022 - 1:53pm
Drawing: C:\Civil_3D_Projects\Projects\Chaska\Chaska_Civil_3D_Projects\Chaska_Civil_3D_Projects_Sheets\Lift_Station_Sheets\Lift_Station_Sheets_Lift_Station_Sheets\Lift_Station_Sheets_Lift_Station_Sheets_ls3.dwg
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cp_ls_sht_xrfa01\dms80398\cp123211_ls.dgn

VALVE MANHOLE

WET WELL

LIGHT / ANTENNA POLE

CONTROL PANEL ABOVE SEE SHEETS LS5 AND LS6

SERVICE DISCONNECT

GROUND ROD

GENERATOR RECEPTACLE

METER SOCKET

SECONDARY ELECTRIC SERVICE

TO POWER CO. TRANSFORMER.

FLOOD ALARM

RADAR LEVEL TRANSDUCER

FLOAT CABLE SUPPORT

GROUND CONNECTION TO FORCE MAIN

FLOAT SWITCHES (2)

SUBMERSIBLE PUMP, TYP.

PUMP CABLE AND CHAIN BRACKETS AT TOP SLAB. (EACH PUMP)

NOTE:
1. SEE SHEET LS5 FOR CONDUIT AND WIRE SIZING.
2. SEE SHEET LS5 FOR CONTROL PANEL ELEVATION.
3. WET WELL IS A CLASS 1, DIV 1 HAZARDOUS LOCATION.
4. VALVE VAULT IS A CLASS 1, DIV 2 HAZARDOUS LOCATION

A LIFT STATION ELECTRICAL

SCALE 0 3 6 FEET

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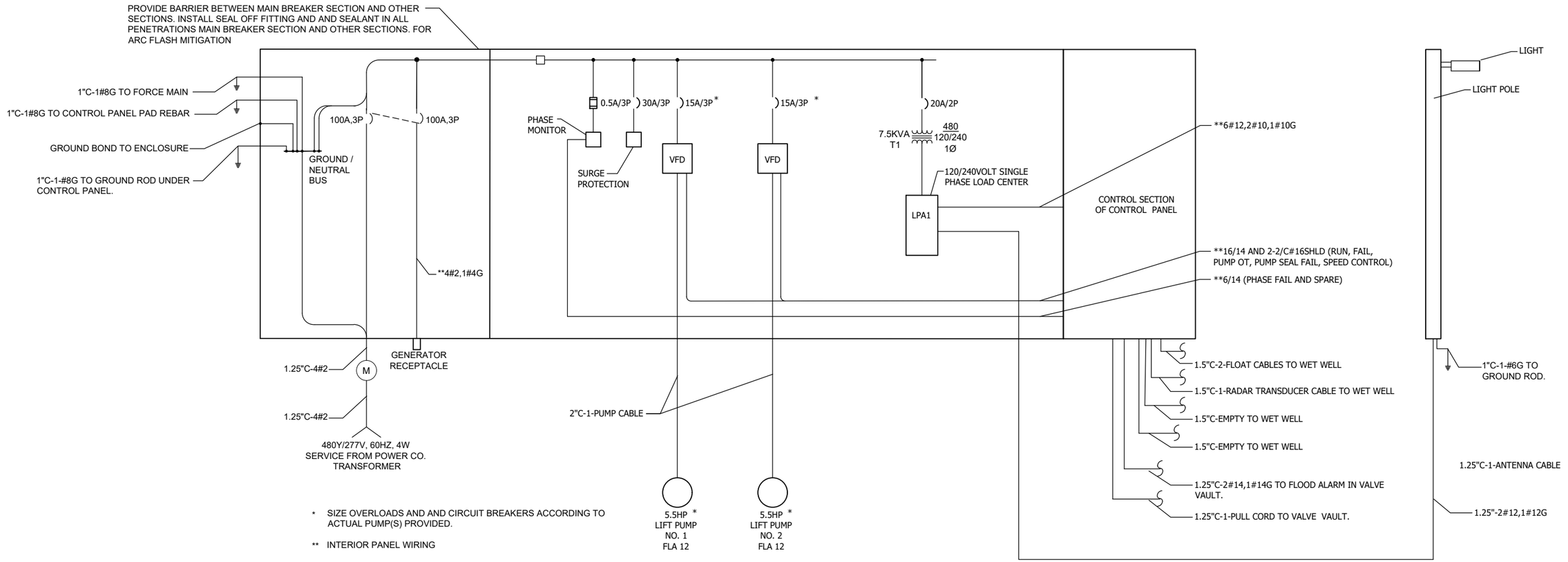
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIFT STATION ELECTRICAL

SHEET 226 OF 359

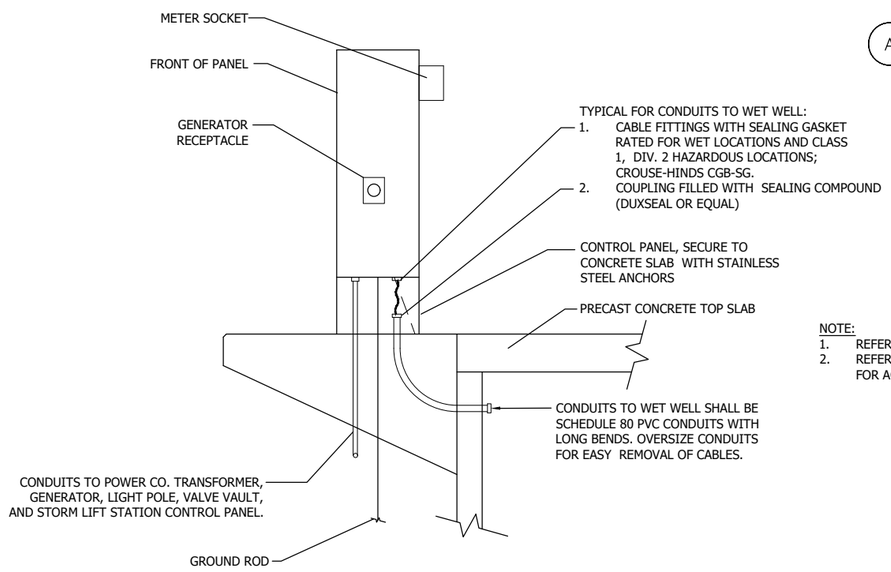
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Xrefs: d:\...\123211_STORM_cp123211_bdr



* SIZE OVERLOADS AND AND CIRCUIT BREAKERS ACCORDING TO ACTUAL PUMP(S) PROVIDED.

** INTERIOR PANEL WIRING

A LIFT STATION - CONTROL PANEL WIRING DIAGRAM
NOT TO SCALE



B CONTROL PANEL / PAD DETAIL - ELEVATION
NOT TO SCALE

NOTE:
1. REFER TO SHEET LS6 FOR CONTROL PANEL PAD DETAIL.
2. REFER TO LIFT STATION PLAN AND SECTION FOR ACTUAL PANEL ORIENTATION.

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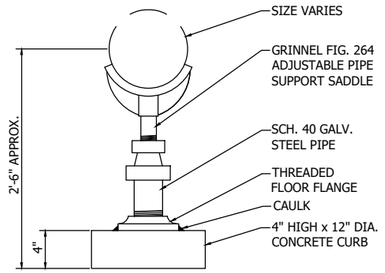
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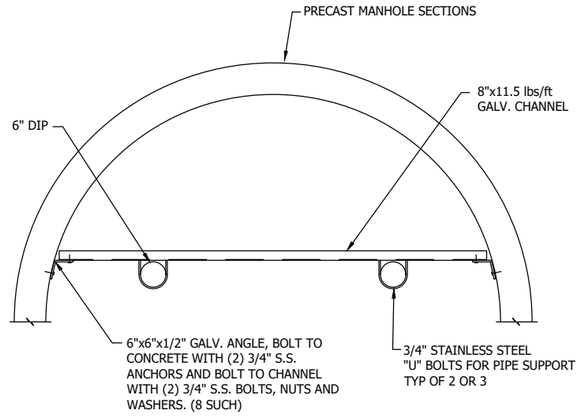
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LIFT STATION ELECTRICAL

SHEET 227 OF 359

Plotted: 03/16/2022 - 12:12pm by: jh, n:\rfo\01\dms80398\cp123211_lp4.dwg
Xref: c:\...\123211_STORM_cp123211_bdr



A PIPE SUPPORT
NO SCALE



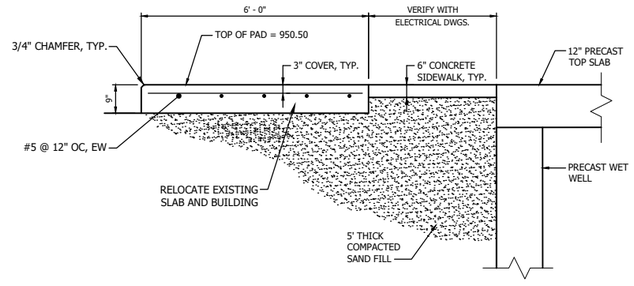
B RISER PIPE SUPPORT PLAN
NO SCALE

MATERIAL:

1.	CONCRETE	4,000 PSI AT 28 DAYS
2.	REINFORCEMENT BARS	ASTM A615, GRADE 60
3.	ALUMINUM	ASTM B209, B308, ALLOY 6061-T6

ABBREVIATIONS:

ADD'L	ADDITIONAL	HOR.	HORIZONTAL
ALUM	ALUMINUM	I.F.	INSIDE FACE
ALT.	ALTERNATE	LT.	JOINT
B.B.	BOND BEAM	KW	KEYWAY
BM.	BEAM	LG	LONG
BOT.	BOTTOM	LONG.	LONGITUDINAL
BRG.	BEARING	MAX.	MAXIMUM
CB	CORNER BAR	MIN.	MINIMUM
CIP	CAST-IN-PLACE	O.C.	ON CENTER
CJ	CONSTRUCTION JOINT	O.F.	OUTSIDE FACE
CLR.	CLEAR	OPNG.	OPENING
CMU	CONC. MASONRY UNIT	P	PLATE
COL.	COLUMN	REINF.	REINFORCEMENT
CONC.	CONCRETE	SIM.	SIMILAR
CONT.	CONTINUOUS	SPA.	SPACING
DIA.	DIAMETER	S.S.	STAINLESS STEEL
DIAG.	DIAGONAL	T&B	TOP & BOTTOM
DWL	DOWEL	T	TOP
EA.	EACH	TOF	TOP OF FOOTING
E.F.	EACH FACE	TOS	TOP OF SLAB
EL.	ELEVATION	TOW	TOP OF WALL
E.W.	EACH WAY	TP	TOP OF PIER
EXP.	EXPANSION	TYP.	TYPICAL
F.D.	FLOOR DRAIN	U.N.O.	UNLESS NOTED OTHERWISE
F.G.	FIBERGLASS	V.B.	VERTICAL BRACING
F.R.P.	FIBERGLAS REINF. PLASTIC	VERT.	VERTICAL
FTG.	FOOTING	WS	WATERSTOP
GALV.	GALVANIZED		



C CONTROL PANEL PAD DETAIL
NO SCALE

Plotted: Date: 3/16/2022 - 1:56
Drawing: C:\Users\...\dm80398\cp123211_bt6.dwg
Xrefs: cp123211_bdr

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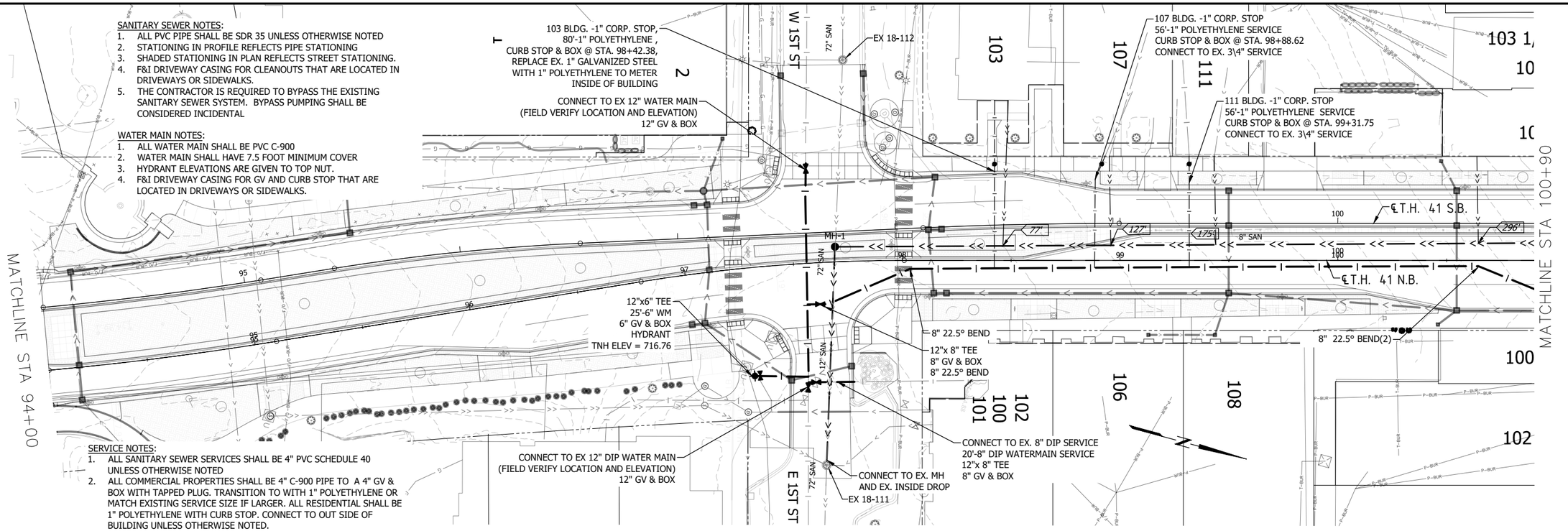
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIFT STATION DETAILS

SHEET 228 OF 359

SANITARY SEWER NOTES:
1. ALL PVC PIPE SHALL BE SDR 35 UNLESS OTHERWISE NOTED
2. STATIONING IN PROFILE REFLECTS PIPE STATIONING
3. SHADED STATIONING IN PLAN REFLECTS STREET STATIONING.
4. F&I DRIVEWAY CASING FOR CLEANOUTS THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.
5. THE CONTRACTOR IS REQUIRED TO BYPASS THE EXISTING SANITARY SEWER SYSTEM. BYPASS PUMPING SHALL BE CONSIDERED INCIDENTAL

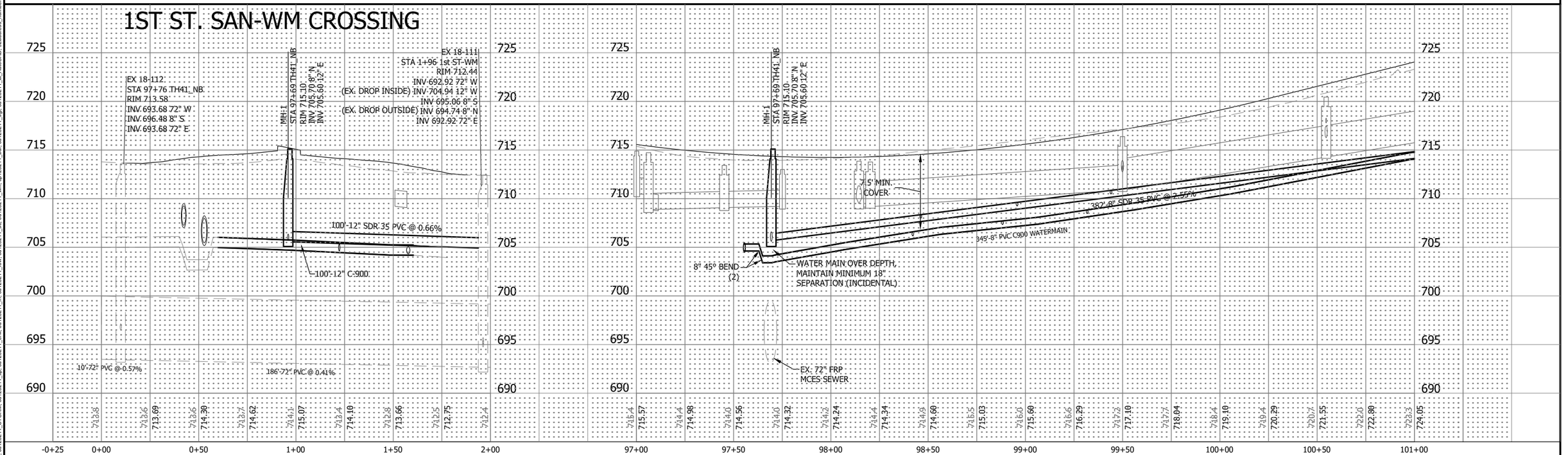
WATER MAIN NOTES:
1. ALL WATER MAIN SHALL BE PVC C-900
2. WATER MAIN SHALL HAVE 7.5 FOOT MINIMUM COVER
3. HYDRANT ELEVATIONS ARE GIVEN TO TOP NUT.
4. F&I DRIVEWAY CASING FOR GV AND CURB STOP THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.

SERVICE NOTES:
1. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC SCHEDULE 40 UNLESS OTHERWISE NOTED
2. ALL COMMERCIAL PROPERTIES SHALL BE 4" C-900 PIPE TO A 4" GV & BOX WITH TAPPED PLUG. TRANSITION TO WITH 1" POLYETHYLENE OR MATCH EXISTING SERVICE SIZE IF LARGER. ALL RESIDENTIAL SHALL BE 1" POLYETHYLENE WITH CURB STOP. CONNECT TO OUT SIDE OF BUILDING UNLESS OTHERWISE NOTED.
3. RESTRAIN ALL JOINTS ON SERVICES.



SANITARY SEWER AND WATER MAIN

1ST ST. SAN-WM CROSSING



HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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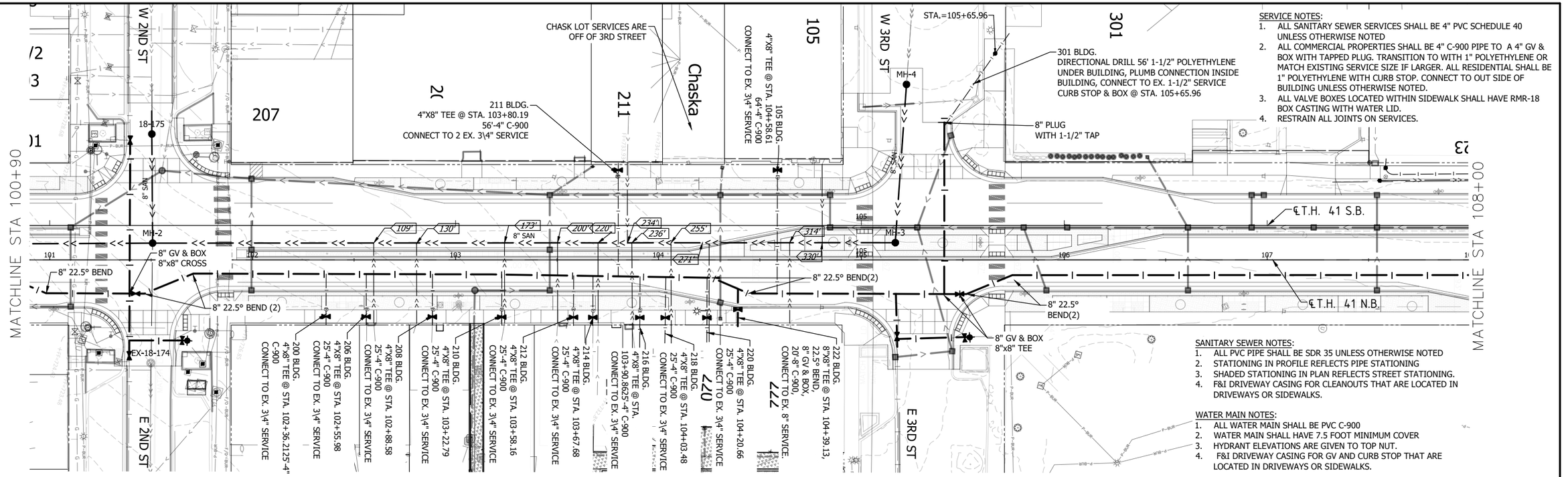
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SANITARY SEWER & WATERMAIN PLAN

SHEET 229 OF 359

Plotted By: Jeffrey Thompson 3/16/2022 - 1:17 PM
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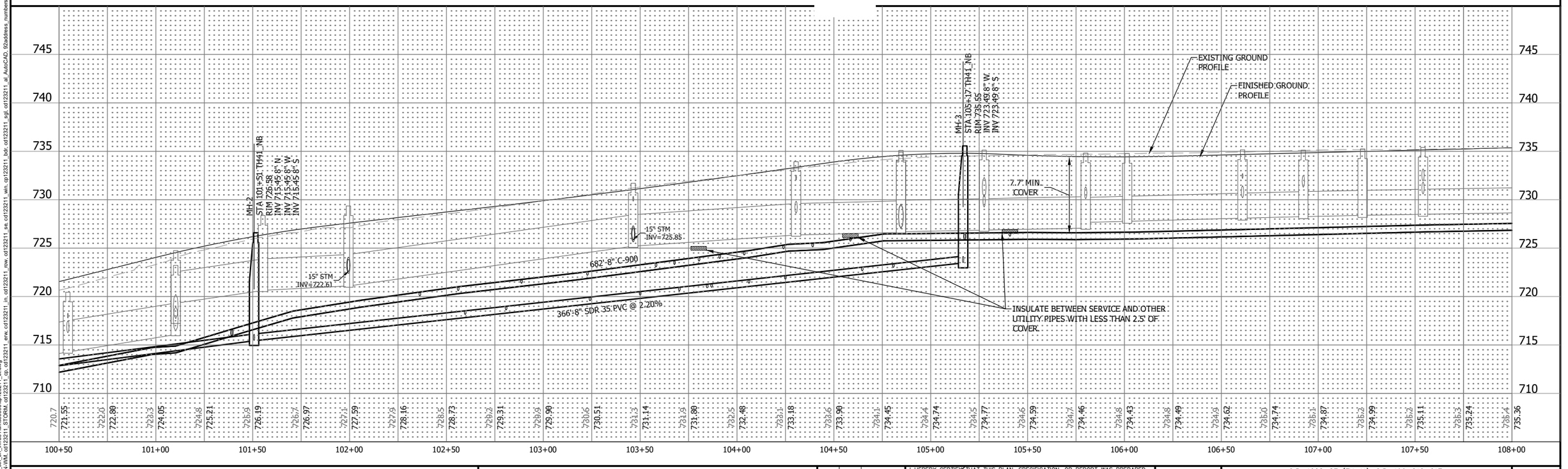
SANITARY SEWER AN TER MAIN



SERVICE NOTES:
1. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC SCHEDULE 40 UNLESS OTHERWISE NOTED
2. ALL COMMERCIAL PROPERTIES SHALL BE 4" C-900 PIPE TO A 4" GV & BOX WITH TAPPED PLUG. TRANSITION TO WITH 1" POLYETHYLENE OR MATCH EXISTING SERVICE SIZE IF LARGER. ALL RESIDENTIAL SHALL BE 1" POLYETHYLENE WITH CURB STOP. CONNECT TO OUT SIDE OF BUILDING UNLESS OTHERWISE NOTED.
3. ALL VALVE BOXES LOCATED WITHIN SIDEWALK SHALL HAVE RMR-18 BOX CASTING WITH WATER LID.
4. RESTRAIN ALL JOINTS ON SERVICES.

SANITARY SEWER NOTES:
1. ALL PVC PIPE SHALL BE SDR 35 UNLESS OTHERWISE NOTED
2. STATIONING IN PROFILE REFLECTS PIPE STATIONING
3. SHADED STATIONING IN PLAN REFLECTS STREET STATIONING.
4. F&I DRIVEWAY CASING FOR CLEANOUTS THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.

WATER MAIN NOTES:
1. ALL WATER MAIN SHALL BE PVC C-900
2. WATER MAIN SHALL HAVE 7.5 FOOT MINIMUM COVER
3. HYDRANT ELEVATIONS ARE GIVEN TO TOP NUT.
4. F&I DRIVEWAY CASING FOR GV AND CURB STOP THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.



0 25 50 HOR. SCALE FEET
0 5 10 VERT. SCALE FEET

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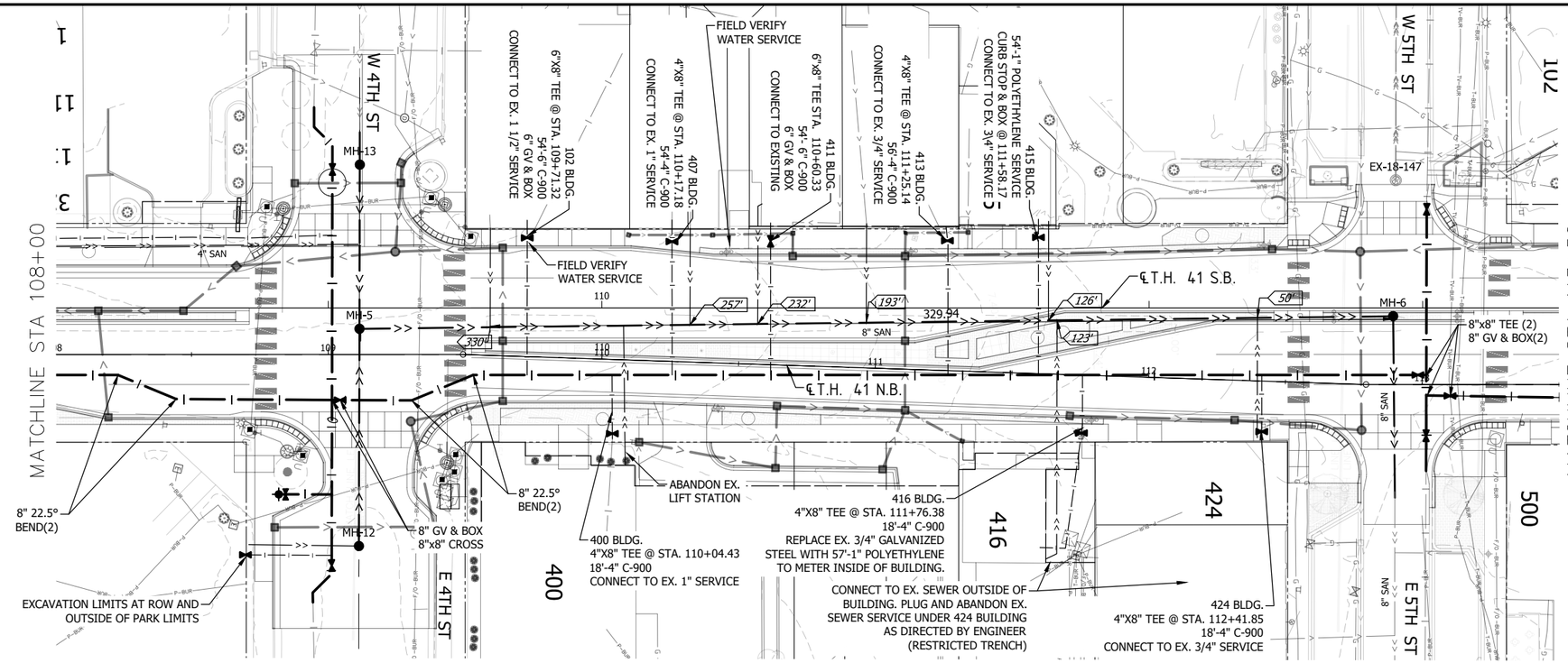
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SANITARY SEWER & WATERMAIN PLAN

SHEET 230 OF 359

Plotted: 03/16/2022 - 10:17
Saved: 3/16/2022 10:17 AM By: jeh
Xrefs: cd123211_topo, 020-053 STREETSCAPE BASE 60, cd123211_ut_topo, cd123211_ut_Private, cd123211_topo, 020-053 STREETSCAPE BASE 60, cd123211_ut_topo, cd123211_sgl, cd123211_bdl, cd123211_win, cp123211_bdl, cd123211_sse, cd123211_nw, cd123211_in, cd123211_erw, cd123211_ut_dwg

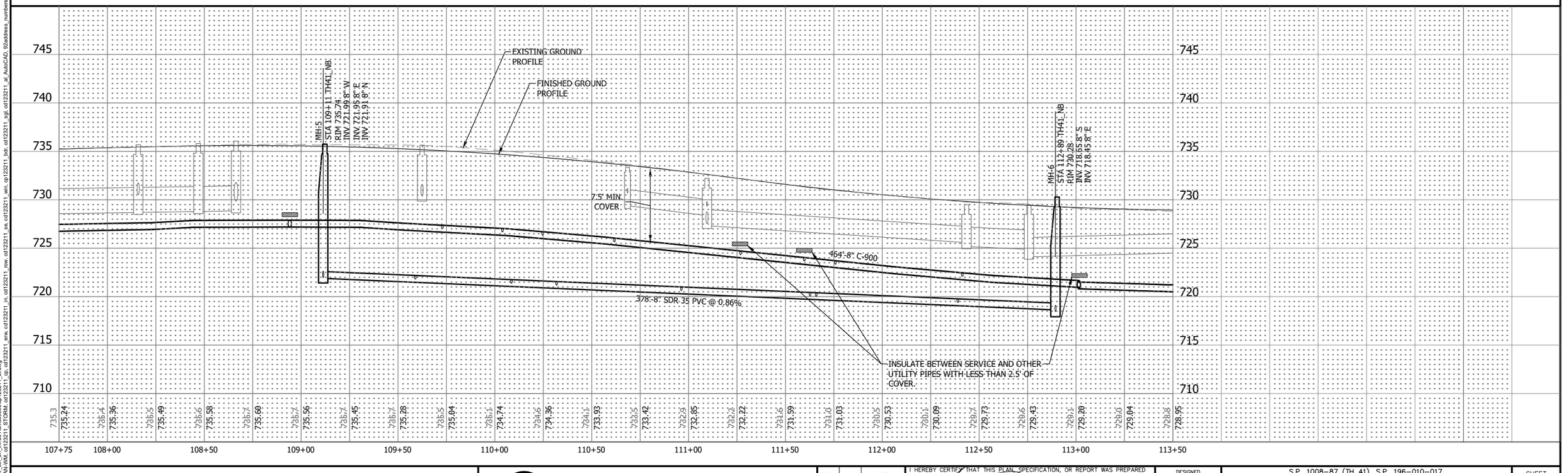


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SERVICE NOTES:
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3. RESTRAIN ALL JOINTS ON SERVICES.

SANITARY SEWER AND WATER MAIN



HOR. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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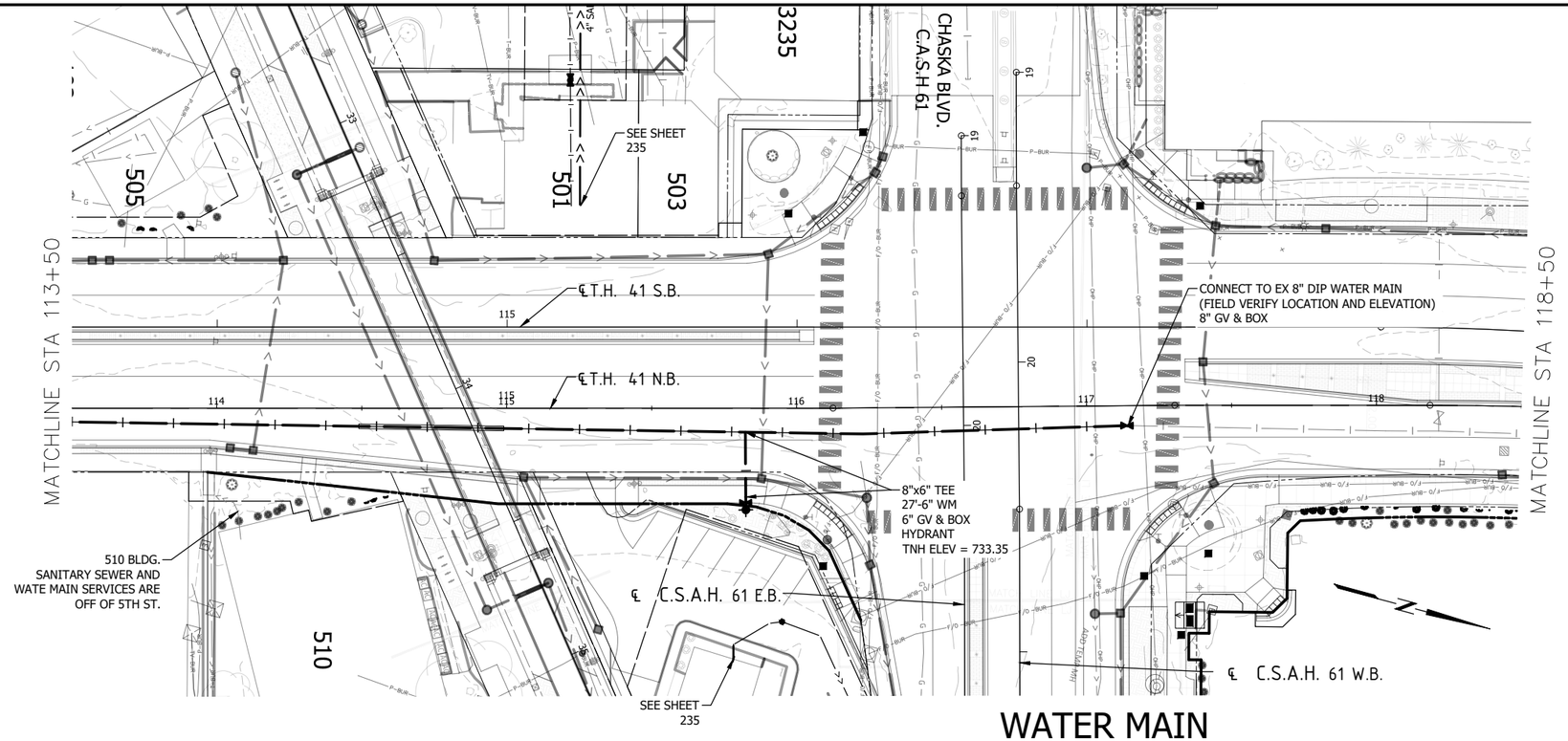
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CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SANITARY SEWER & WATERMAIN PLAN

SHEET 231 OF 359

Plotted by: 3/16/2022 UTB
Drawing: C:\Civil_dh_jh_infra01\dms8038\cp123211_ut.dwg
Xrefs: cd123211_SAN-WM, cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_in, cd123211_now, cd123211_win, cp123211_bdi, cd123211_sgl, cd123211_sle, cd123211_ul_ltxp, cd123211_cp_parking
Xrefs: cd123211_ul_Private, cd123211_ltxp, 020-053 STREETSCAPE BASE (60), cd123211_ul_ltxp, cd123211_cp_parking
Xrefs: cd123211_ul_ltxp, cd123211_cp_parking, cd123211_ul_AutoCAD, 92address_numbers, cd123211_ul_ltxp, cd123211_cp_parking

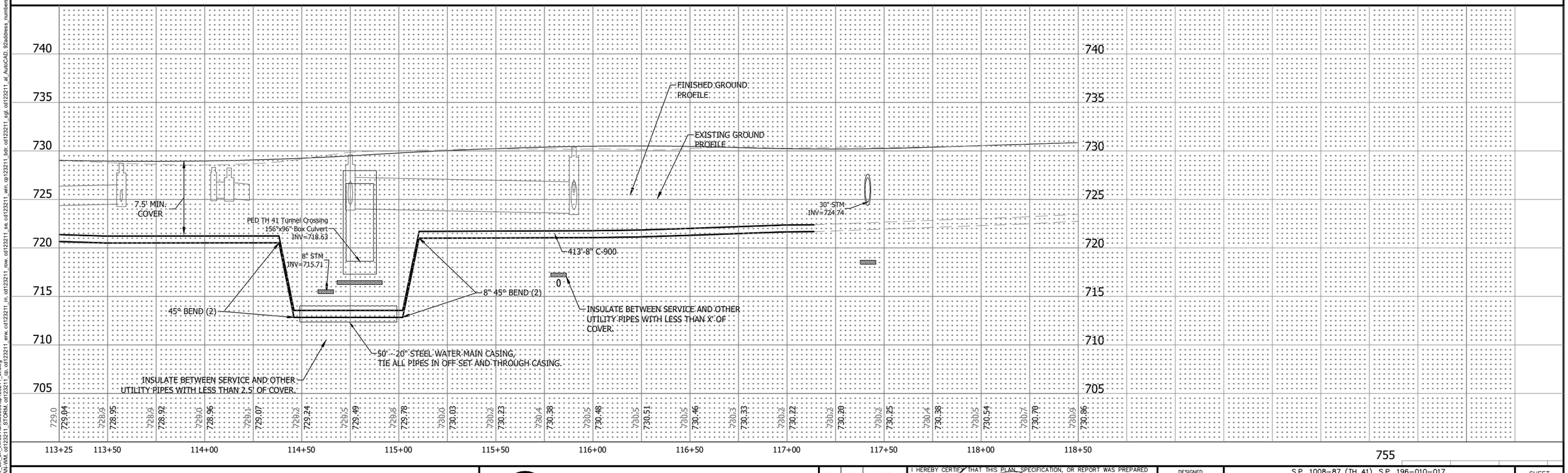


WATER MAIN

SANITARY SEWER NOTES:
1. ALL PVC PIPE SHALL BE SDR 35 UNLESS OTHERWISE NOTED
2. STATIONING IN PROFILE REFLECTS PIPE STATIONING
3. SHADED STATIONING IN PLAN REFLECTS STREET STATIONING.
4. F&I DRIVEWAY CASING FOR CLEANOUTS THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.

WATER MAIN NOTES:
1. ALL WATER MAIN SHALL BE PVC C-900
2. WATER MAIN SHALL HAVE 7.5 FOOT MINIMUM COVER
3. HYDRANT ELEVATIONS ARE GIVEN TO TOP NUT.
4. F&I DRIVEWAY CASING FOR GV AND CURB STOP THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.

SERVICE NOTES:
1. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC SCHEDULE 40 UNLESS OTHERWISE NOTED
2. ALL COMMERCIAL PROPERTIES SHALL BE 4" C-900 PIPE TO A 4" GV & BOX WITH TAPPED PLUG.TRANSITION TO WITH 1" POLYETHYLENE OR MATCH EXISTING SERVICE SIZE IF LARGER. ALL RESIDENTIAL SHALL BE 1" POLYETHYLENE WITH CURB STOP. CONNECT TO OUT SIDE OF BUILDING UNLESS OTHERWISE NOTED.
3. RESTRAIN ALL JOINTS ON SERVICES.



HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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Minneapolis, MN 55402
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REV.	BY	DATE

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

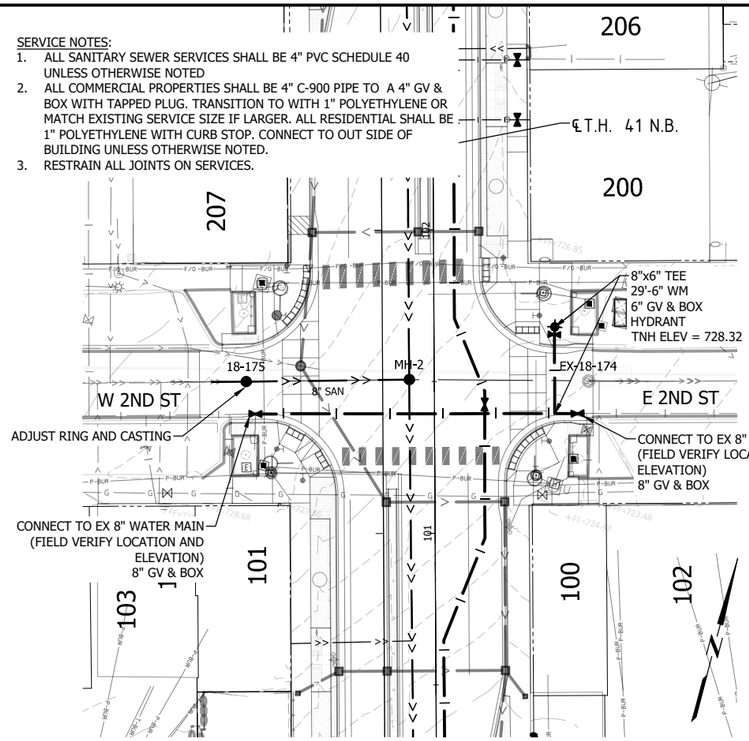
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SANITARY SEWER & WATERMAIN PLAN

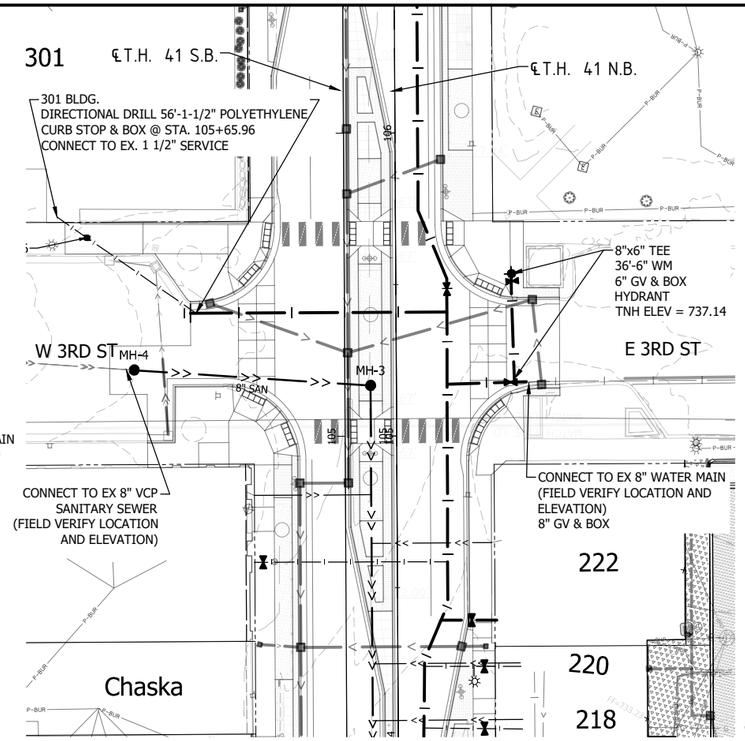
SHEET 232 OF 359

Plotted: 03/16/2022 - 11:14
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cd123211_SAN-WM, cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_in, cd123211_now, cd123211_se, cd123211_win, cp123211_bdi, cd123211_sgl, cd123211_all_AutoCAD, 92address_numbers, cd123211_ut.dwg
Xrefs: dc_cvwz_sh_jh_inf-01dms8038#cp123211_ut.dwg

SERVICE NOTES:
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3. RESTRAIN ALL JOINTS ON SERVICES.



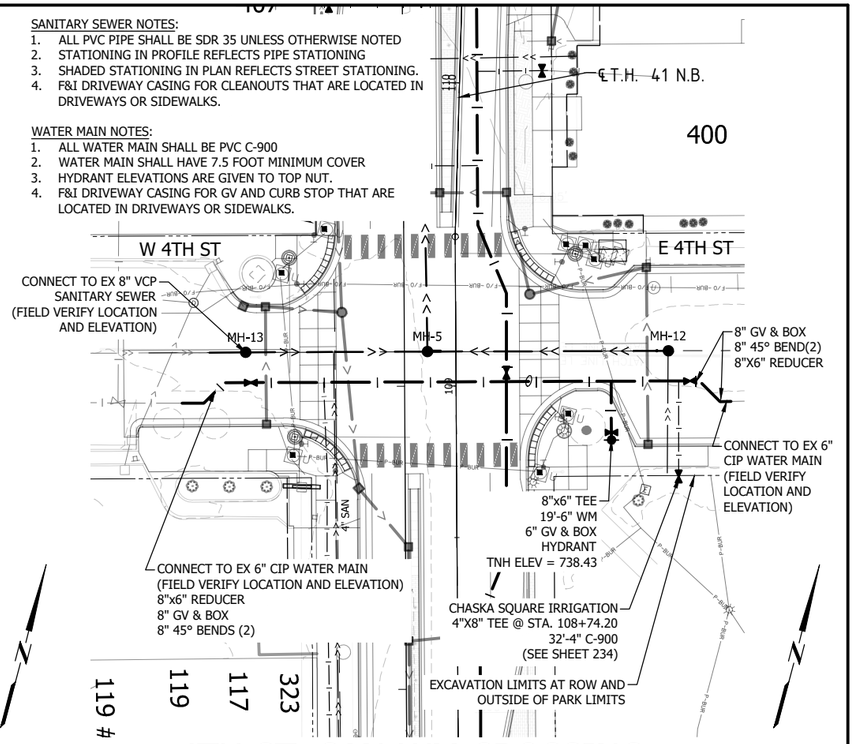
2ND ST. SAN-WM CROSSING



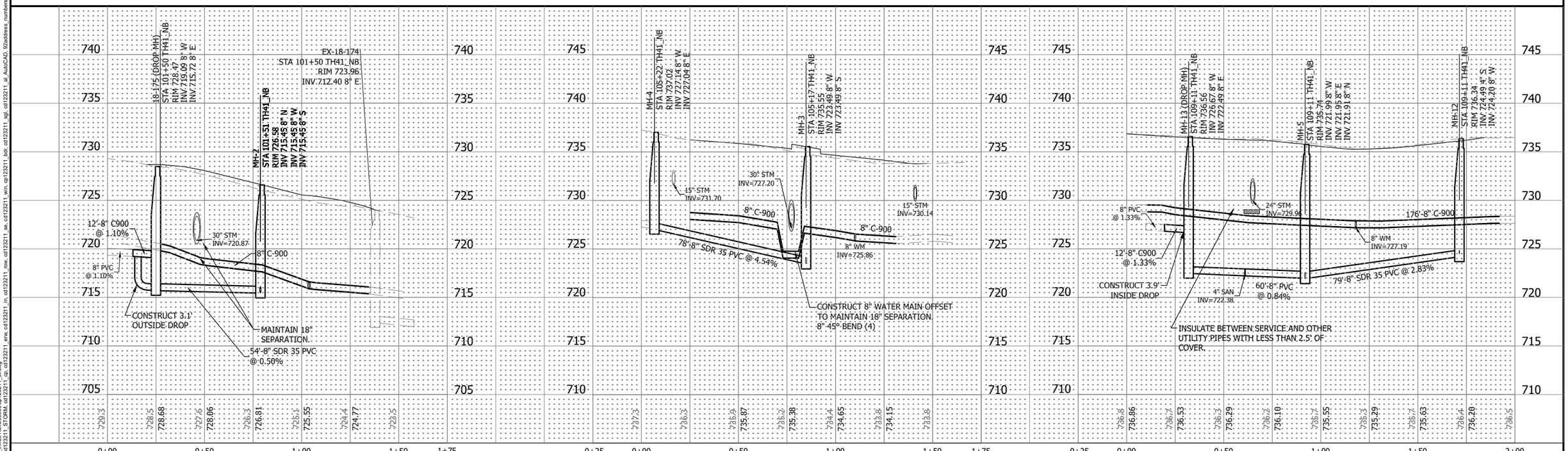
3RD ST. SAN-WM CROSSING

SANITARY SEWER NOTES:
1. ALL PVC PIPE SHALL BE SDR 35 UNLESS OTHERWISE NOTED
2. STATIONING IN PROFILE REFLECTS PIPE STATIONING
3. SHADED STATIONING IN PLAN REFLECTS STREET STATIONING.
4. F&I DRIVEWAY CASING FOR CLEANOUTS THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.

WATER MAIN NOTES:
1. ALL WATER MAIN SHALL BE PVC C-900
2. WATER MAIN SHALL HAVE 7.5 FOOT MINIMUM COVER
3. HYDRANT ELEVATIONS ARE GIVEN TO TOP NUT.
4. F&I DRIVEWAY CASING FOR GV AND CURB STOP THAT ARE LOCATED IN DRIVEWAYS OR SIDEWALKS.



4TH ST. SAN-WM CROSSING



HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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REV.	BY	DATE

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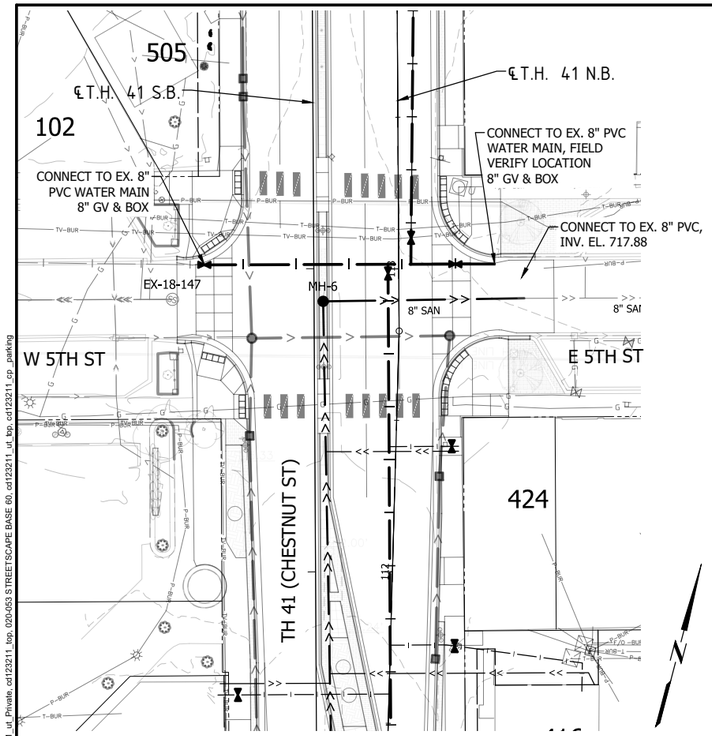
ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

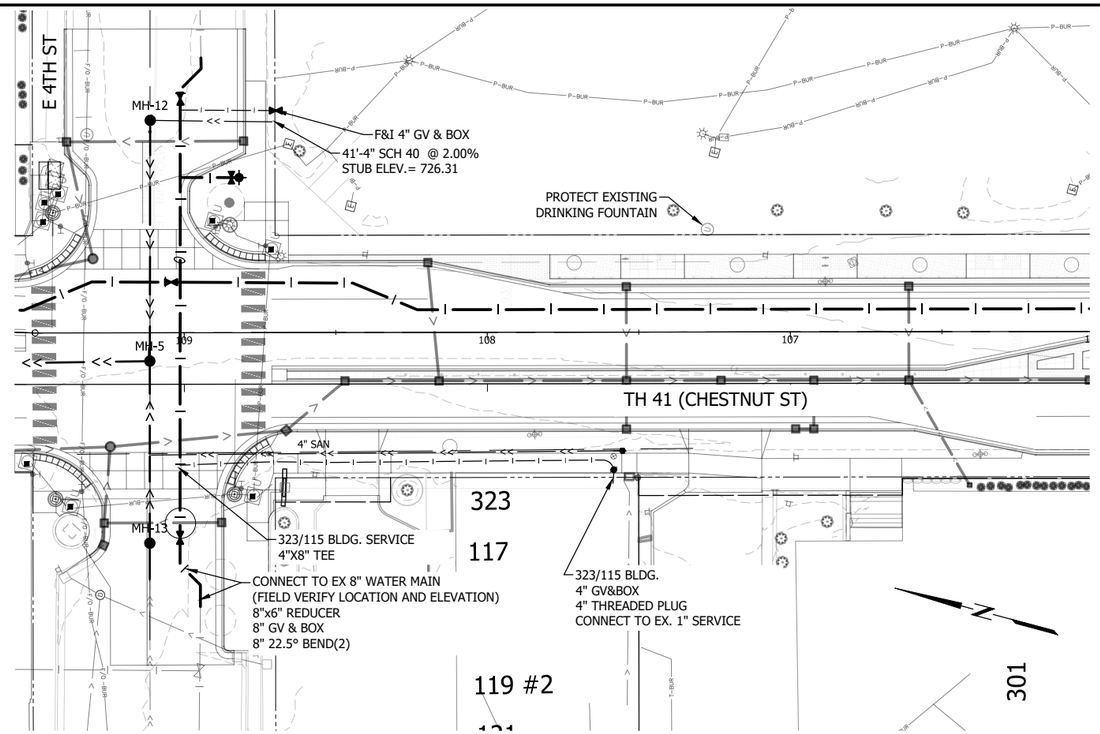
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SANITARY SEWER & WATERMAIN PLAN

SHEET 233 OF 359

Plotted: 03/16/2022 - 11:15
Plotted By: Cortez, Jon
Xrefs: d123211_STORM.dgn, d123211_sp_plan.dgn, d123211_ut_Private.dgn, d123211_top_020-053 STREETSCAPE BASE (6).dgn, d123211_ut_top.dgn, d123211_parking
Xrefs: d123211_SAN-WM.dgn, d123211_STORM.dgn, d123211_qp.dgn, d123211_erw.dgn, d123211_in.dgn, d123211_now.dgn, d123211_we.dgn, d123211_win.dgn, d123211_bdi.dgn, d123211_sgi.dgn, d123211_al_AutoCAD, 92address_numbers, d123211_ut_dwg



5TH ST. SAN-WM CROSSING

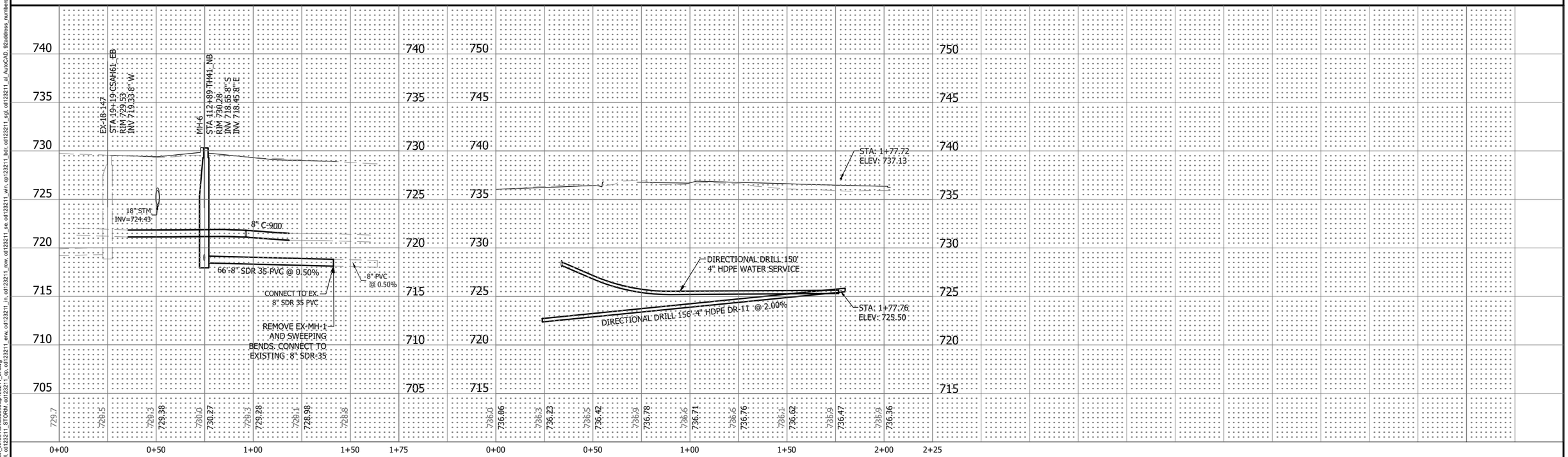


BUILDING 323 TH41 SERVICES

SANITARY SEWER NOTES:
1. ALL PVC PIPE SHALL BE SDR 35 UNLESS OTHERWISE NOTED
2. STATIONING IN PROFILE REFLECTS PIPE STATIONING
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3. RESTRAIN ALL JOINTS ON SERVICES.



HOR. 0 25 50 SCALE FEET
VERT. 0 5 10 SCALE FEET

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DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

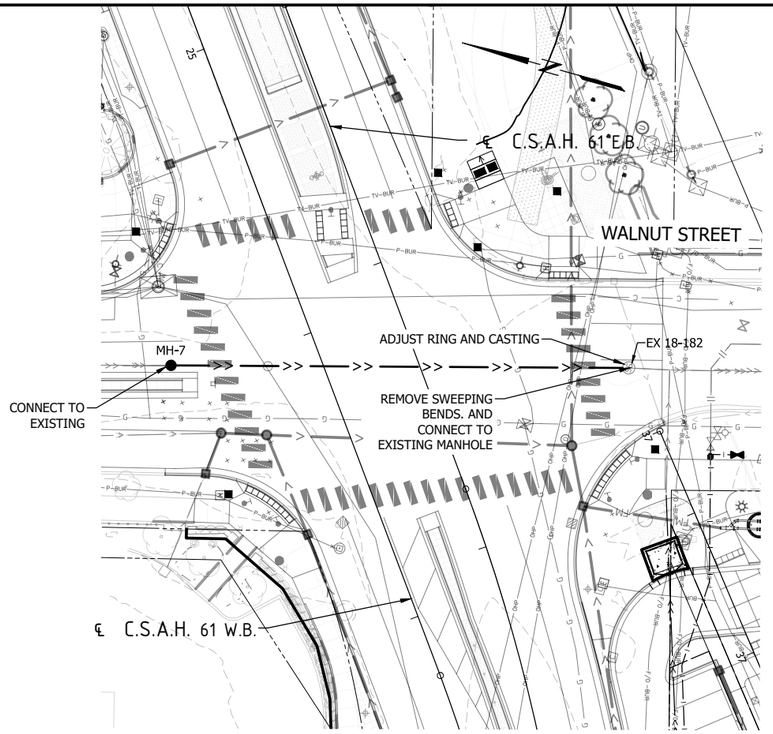
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SANITARY SEWER & WATERMAIN PLAN

SHEET 234 OF 359

Plotted: 3/16/2022 - 1:18 PM By: Dan Wolf
Xrefs: c:\Civil_3D_Projects_Active\0038\cg123211_ut\Plan\cd123211_ut_Private_cd123211_top_020-053 STREETSCAPE BASE 60_cd123211_ut_top_cd123211_cp_parking numbers_cd123211_ut_AutoCAD_92address_numbers_cd123211_all_AutoCAD_92address_numbers_cd123211_sgl_cd123211_bdi_cd123211_win_cp123211_sw_cd123211_now_cd123211_in_cd123211_ere_cd123211_cp_cd123211_ut.dwg
Xrefs: cd123211_STORM_cd123211_STORM_cd123211_cp_cd123211_ut.dwg

P:\Data\2019\019-0053\Engr\Design\Roadway\Plan Sets\cd123211_ut_Private, cd123211_top, 020-053 STREETSCAPE BASE 60, cd123211_ut_top, cd123211_cp_parking
Plotted: 03/16/2022 - 11:17
Xrefs: cd123211_SAN-WM, cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_in, cd123211_now, cd123211_se, cd123211_win, cp123211_bdi, cd123211_sgl, cd123211_al_AutoCAD, 92address_numbers, cd123211_ut_Private, cd123211_ut_Private, cd123211_top, cd123211_ut_hyd, cd123211_ut_hyd, cd123211_ut_hyd

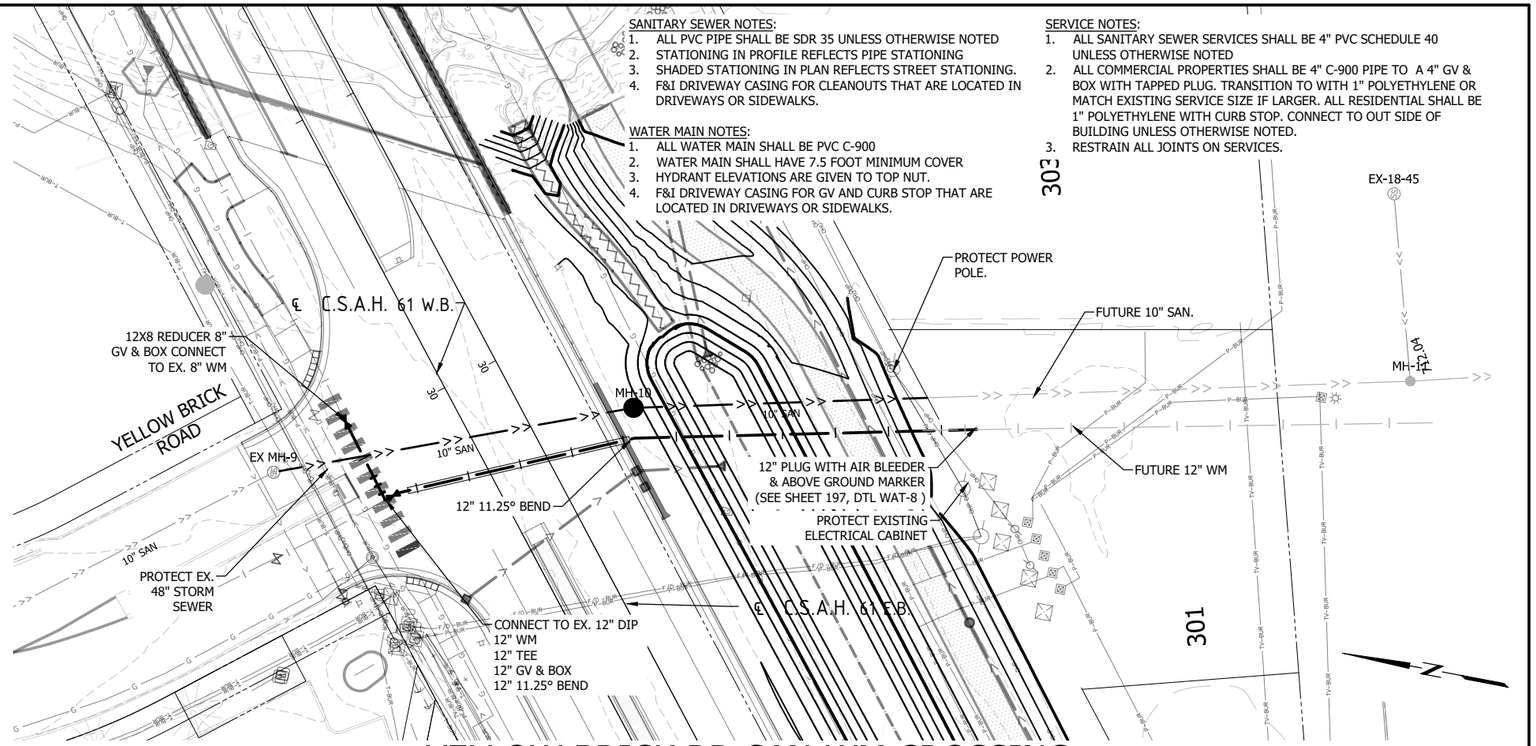


CSAH 61 & WALNUT ST SAN. S. CROSSING

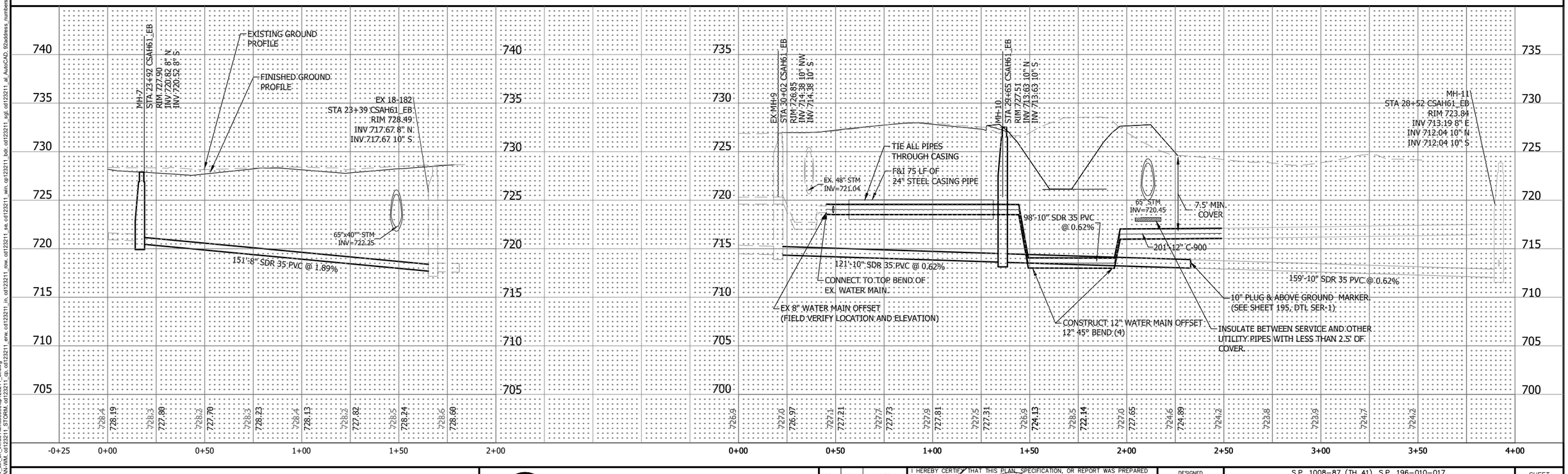
SANITARY SEWER NOTES:
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3. RESTRAIN ALL JOINTS ON SERVICES.



YELLOW BRICK RD SAN-WM CROSSING



HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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REV.	BY	DATE

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ALAN OFFERMAN
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S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SANITARY SEWER & WATERMAIN PLAN

SHEET 236 OF 359

Plotted: 03/16/2022 - UTB
Xrefs: c:\cwz...sh_ih_inf\n01\dms8038\cp123211_ut.dwg
Xrefs: cd123211_STORM, cd123211_cp, cd123211_erw, cd123211_in, cd123211_now, cd123211_se, cd123211_win, cp123211_bdi, cd123211_sgl, cd123211_al_AutoCAD, 92address_numbers, cd123211_ut_Private, cd123211_top, 020-053 STREETSCAPE BASE 60, cd123211_ut_top, cd123211_cp_parking

WATERMAIN TABULATION — O

LOCATION	ALIGNMENT	STATION	CONNECT TO EXISTING WATERMAIN	HYDRANT	6" GATE VALVE AND BOX	8" GATE VALVE AND BOX	12" GATE VALVE AND BOX	6" PVC WATERMAIN C900	8" PVC WATERMAIN C900	12" PVC WATERMAIN C900	20" CASING	24'' CASING	DUCTILE IRON FITTINGS	4" INSULATION
			EACH	EACH	EACH	EACH	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	POUND	SQ YD
TH41	TH41_NB	00+00 - 19+96.11	1	1	1	6		22	1972		50		4190	50
1st St	TH41_NB	00+00	2	1	1		2	25		100			456	
2nd St	TH41_NB	3+95.37	2	1	1	2		32	110				218	5
3rd St	TH41_NB	7+80.37 - 8+04.17	1	1	1	1		36	110				640	5
4th St	TH41_NB	11+72.21	2	1	1	2		19	187				710	5
5th St	TH41_NB	15+83.52	2			2			83				0	
Yellow Brick Road	CSAH61_EB		3			1	1			208		75	1313	5
NON-PARTICIPATING TOTAL			**13**	**5**	**5**	**14**	**3**	**134**	**2462**	**308**	**50**	**75**	**7527**	**70**

WATER SERVICE TABULATION — P

STREET	ADDRESS	CONNECT TO EXISTING WATER SERVICE	RECONNECT WATER SERVICE (PLUMBED CONNECTION)	CONNECT TO EXISTING WATER MAIN	1" CORPORATION STOP	1" CURB STOP & BOX	1" SADDLE	4" GATE VALVE AND BOX	6" GATE VALVE AND BOX	8" GATE VALVE AND BOX	CASTING ASSEMBLY SPECIAL	1" TYPE PE PIPE	1" TYPE PE PIPE (DIRECTIONAL DRILLED)	1-1/2" CORPORATION STOP	1-1/2" CURB STOP & BOX	1-1/2" SADDLE	1-1/2" TYPE PE PIPE	1-1/2" TYPE PE PIPE (DIRECTIONAL DRILLED)	4" HDPE PIPE (DIRECTIONAL DRILLED)	4" PVC WATERMAIN C900	6" PVC WATERMAIN C900	8" PVC WATERMAIN C900	DUCTILE IRON FITTINGS
		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN FT	LIN FT	EACH	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT		POUND
TH 41	103		1		1	1	1					80											
TH 41	107	1			1	1	1					56											
TH 41	111	1			1	1	1					56											
TH 41	200	1						1			1	5								25			72
TH 41	206	1						1			1	5								25			72
TH 41	208	1						1			1	5								25			72
TH 41	210	1						1			1	5								25			72
TH 41	212	1						1			1	5								25			72
TH 41	214	1						1			1	5								25			72
TH 41	216	1						1			1	5								25			72
TH 41	218	1						1			1	5								25			72
TH 41	220	1						1			1	5								25			72
TH 41	222			1						1	1	5										19	143
TH 41	211	2						1			1	5								56			72
TH 41	105	1						1			1	5								64			72
TH 41	301		1									5		1	1	1		56					72
TH 41	323*	1						1			1	10							150				72
TH 41	CH. SQUARE							1			1	5								28			72
TH 41	102	1							1		1						5				54		79
TH 41	407	1						1			1	5								54			72
TH 41	411			1					1		1	5									54		79
TH 41	413	1						1			1	5								56			72
TH 41	415	1			1	1	1					57											
TH 41	400	1						1			1	5								18			72
TH 41	416		1					1			1	57								18			72
TH 41	424	1						1			1	5								18			72
TH 41	501		1					1			1	5	44						107				72
WALNUT	3115	2															206						
1ST STRET	100			1						1												20	92
NON-PARTICIPATING TOTAL		**23**	**4**	**3**	**4**	**4**	**4**	**19**	**2**	**2**	**22**	**416**	**44**	**1**	**1**	**1**	**211**	**56**	**257**	**537**	**108**	**39**	**1833**

*Includes Buildings 323, 117, 119, 119 #2, 121, 123

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REV.	BY	DATE

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

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DRAWN JLT/PJW
CHECKED MRL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
WATER MAIN TABULATIONS

SHEET 237 OF 359

Date/Time: 3/4/2022, 1:17:10 PM
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Last Saved By: cjohnson
Xref: c:\temp\123211.bdf

SANITARY SEWER TABULATION

Q

FROM STRUCTURE (1)	TO STRUCTURE	ALIGN	SHEET	PLATE NO.	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 3	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 4	CASTING	ADJUST FRAME RING & CASTING	CONNECT TO EX. MH	CONNECT TO EX. PIPE	CONST. 8" OUTSIDE DROP	CONSTRUCT 8'' INSIDE DROP	8" HDPE DR-11 (DIRECTIONAL DRILL)	8" PIPE SEWER SDR 35	8" PIPE SEWER C900	10" PIPE SEWER SDR 35	12" PIPE SEWER SDR 35	10'' PIPE PLUG	NOTE
					LIN FT	LIN FT	EACH	EACH	EACH	EACH	LIN FT	LIN FT		LIN FT	LIN FT	LIN FT	LIN FT	EACH	
MH-4	MH-3	3rd St San-WM Crossing	230, 233	SAN - 1	10.0		1			1				78					
MH-3	MH-2	TH41_NB	230	SAN - 2	12.1		1							366					
MH-2	MH-1	TH41_NB	229, 230	SAN - 2	11.1		1							382					
MH-1	EX 18-111	TH41_NB	229	SAN - 2	9.5		1		1								100		
EX 18-111		1st ST-WM	229					1											
EX	MH-13	3rd St San-WM Crossing	233							1				12					
MH-13	MH-5	4th St San-WM Crossing	231, 233	SAN -1	14.1		1					4		60					
MH-5	MH-6	TH41_NB	231, 233	SAN - 1	13.8		1							378					
MH-6	EX-MH-1	TH41_NB	234	SAN - 2	11.8		1			1				66					
EX-MH-1		5th St San-WM Crossing	234					1											
MH-12	MH-5	4th St San-WM Crossing	233, 234	SAN - 2	12.1		1							79					
EX-18-175	MH-2	2nd St San-WM Crossing	233	SAN - 4		12.8	1	1	1					54					
EX	EX-18-175	2nd St San-WM Crossing	233						1	1	3				12				
MH-7	EX-MH-2	Walnut-CR61-San	236	SAN - 2	7.4		1			1				151					
EX-MH-2		Walnut-CR61-San	236					1	1										
FUTURE MH-9	MH-10	YellowBrickRd-WM	236	SAN - 2												121			MARK LOCATION
MH-10	10" PLUG	YellowBrickRd-WM	236		13.9		1									98		1	
10" PLUG		YellowBrickRd-WM																	MARK LOCATION
MH-14	EX 29-155	Services-Bldg 501	235	SAN - 4		10.5	1		1	1	5		214		20				
EX 29-155		Services-Bldg 501	235	SAN - 2	12.9		1	1											
			TOTALS		129	23	13	5	5	6	8	4	214	1626	32	219	100	1	

(1) STRUCTURE BUILD AND CASTING INFORMATION PERTAINS TO FROM STRUCTURE
(2) GRANULAR BEDDING HAS BEEN PROVIDED FOR USE AS DIRECTED BY ENGINEER FOR SANITARY SEWER BEDDING

SANITARY SEWER SERVICES

R

STATION	ALIGNMENT	ADDRESS #	DIRECTION	RECONNECT SANITARY SEWER SERVICE (EA)	CONNECT SEWER SERVICE (PLUMBED) (EA)	8"X4" PVC WYE (EA)	4" PVC SEWER SCH 40 (FT)	4" HDPE DR-11 (DIRECTIONAL DRILL)	6'' CLEAN-OUT ASSEMBLY	CASTING ASSEMBLY SPECIAL 2	6" PVC SEWER SCH 40 (FT)	NOTE
98+46.24	TH41_NB	103	LT	1		1	67					RESIDENTIAL
98+95.75	TH41_NB	107	LT	1		1	41					RESIDENTIAL
99+44.01	TH41_NB	111	LT	1		1	41					RESIDENTIAL
100+64.51	TH41_NB	101	LT	1		1	40					
102+59.67	TH41_NB	206	RT	1		1	40					
102+80.80	TH41_NB	208	RT	1		1	40					
103+24.13	TH41_NB	210	RT	1		1	40					
103+50.30	TH41_NB	212	RT	1		1	40					
103+70.21	TH41_NB	214	RT	1		1	40					
103+84.69	TH41_NB	211	LT	1		1	40					
103+86.87	TH41_NB	216	RT		1	1	52					
104+06.16	TH41_NB	218	RT		1	1	50					
104+24.94	TH41_NB	220	RT		1	1	49					
104+64.64	TH41_NB	222	RT	1		1	40					
104+80.71	TH41_NB	105	LT	1		1	40					
109+10.96	TH41_NB	323	RT	1		1		156				
109+09.66	TH41_NB	Chaska Square	RT	1		1	41					
109+58.82	TH41_NB	102	LT	1		1	36					
110+07.52	TH41_NB	400	RT	1		1	51					
110+31.79	TH41_NB	407	LT	1		1	35					
110+56.53	TH41_NB	411	LT	1		1	45					
110+96.13	TH41_NB	413	LT	1		1	36					
111+62.68	TH41_NB	415	LT	1		1	36					
111+65.81	TH41_NB	416	RT	1		1	90		1	1		
112+38.99	TH41_NB	424	RT	1		1	44					
115+25.29	TH41_NB	501	RT		1			131				
115+78.20	TH41_NB	3115		2					1	1	283	CONNECT TO EXISTING. CASTING ASSEMBLY
			TOTAL	24	4	25	1074	287	2	2	283	

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REV.	BY	DATE

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SANITARY SEWER

SHEET 238 OF 359

Plotted by: Jeffrey.Thompson on 7/7/2022, UTM
Drawing: C:\pw_ea\pw_bh_infra01\dms80398\cp123211_sl2.dwg
Xrefs: cp123211_bar

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014 IS LOCATED ON TH 41 AND CSAH 61 FROM MINNESOTA RIVER BRIDGE TO 600' NORTH OF TH 41 AND CSAH 61 INTERSECTION FOR WORK ALONG TH 41 AND FROM TH 41 AND CSAH 61 INTERSECTION TO 1,350' EAST ALONG CSAH 61, IN THE CITY OF CHASKA IN CARVER COUNTY. THE PLANNED SCOPE OF THE PROJECT INCLUDES: GRADING, CONCRETE SURFACING, BITUMINOUS SURFACING, UTILITY IMPROVEMENTS, BOX CULVERT, ADA IMPROVEMENTS, RETAINING WALLS, SIGNALS, LIGHTING, AND TMS.

THE SWPPP MUST BE AMENDED TO DOCUMENT ANY CHANGES TO EROSION AND SEDIMENT CONTROLS, METHODS OR PRACTICES. THESE AMENDMENTS MUST BE TIMELY TO KEEP THE SWPPP UPDATED AND NEED TO BE KEPT ON SITE.

RESPONSIBILITIES

PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR PER MNDOT SPECIFICATION 2573.3.A.1.
EROSION CONTROL SUPERVISOR WILL WORK WITH PROJECT ENGINEER TO OVERSEE IMPLEMENTATION OF SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING AND AFTER CONSTRUCTION UNTIL PERMIT TERMINATION CONDITIONS HAVE BEEN MET.

PROVIDE AT LEAST ONE CERTIFIED INSTALLER PER MNDOT SPECIFICATION 2573.3.A.2. FOR EACH CONTRACTOR OR SUBCONTRACTOR THAT PLACES THE PRODUCTS LISTED IN MNDOT SPECIFICATION SECTION 2573.3.A.2.

CHAIN OF RESPONSIBILITY

MNDOT AND THE CONTRACTOR ARE CO-PERMITEES FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION
PERMIT. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. MNDOT'S CONSTRUCTION PROJECT ENGINEER WILL ENSURE THAT THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL SUPERVISOR FULFILLS THEIR DUTIES.

LAND FEATURE CHANGES

TOTAL DISTURBED AREA	10.09 ACRES
WITHIN THE DISTURBED AREA: TOTAL EXISTING IMPERVIOUS SURFACE AREA	8.66 ACRES
WITHIN THE DISTRUBED AREA: TOTAL PROPOSED IMPERVIOUS SURFACE AREA	8.68 ACRES
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS SURFACE AREA	0.02 ACRES

SWPPP SHEET DESCRIPTIONS	LOCATION
TEMPORARY EROSION CONTROL MEASURES	SHEETS NO. 242-252
PERMANENT EROSION CONTROL MEASURES	SHEETS NO. 242-252
DIRECTION OF FLOW	SHEETS NO. 201-204,214
FINAL STABILIZATION	SHEETS NO. 242-252
SOILS AND CONSTRUCTION NOTES	SHEETS NO. 10
DRAINAGE STRUCTURES	SHEETS NO. 205-213,215
DRAINAGE TABULATION	SHEETS NO. 218-222
STORM SEWER PROFILE SHEETS	SHEETS NO. 205-213,215
STORM SEWER TABULATION	SHEETS NO. 218-222
EROSION AND SEDIMENT CONTROL DETAILS	SHEETS NO. 44-53
EROSION CONTROL TABULATION	SHEETS NO. 20
TURF ESTABLISHMENT TABULATION	SHEETS NO. 20
STORMWATER TREATMENT CONSTRUCTION STAGING	SHEETS NO. 239-241
STORMWATER CALCULATIONS	HYDRAULICS FOLDER

SOIL TYPES

SOIL TYPES TYPICALLY FOUND ON THIS PROJECT ARE SOILS PRESENT BELOW THE PAVEMENTS WERE MOSTLY GRANULAR; COMMON SOILS INCLUDED SAND (S), WITH SOME LOAMY SAND (LS) AND SLIGHTLY PLASTIC AND PLASTIC SANDY LOAM (SL). OTHER SOILS SUCH AS CLAY LOAM (CL) AND SILTY CLAY LOAM (SICL) WERE ALSO PRESENT IN A VERY LIMITED NUMBER OF LOCATIONS.

ENVIRONMENTAL REVIEW

THERE ARE NO STORMWATER MITIGATION MEASURES REQUIRED AS A RESULT OF AN ENVIRONMENTAL, ARCHEOLOGICAL OR AGENCY REVIEW. ALL MITIGATION MEASURES HAVE BEEN ADDRESSED IN THIS PLAN SET OR THE SPECIAL PROVISIONS.

THIS PROJECT IS NOT LOCATED IN A WELL HEAD PROTECTION AREA.

THIS PROJECT IS NOT LOCATED IN A DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA).

THIS PROJECT IS NOT LOCATED IN A KARST AREA.

THIS PROJECT IS NOT LOCATED IN AN EMERGENCY RESPONSE AREA (ERA) PER DEPARTMENT OF HEALTH.

WATER RELATED PERMITS

AGENCY	TYPE OF PERMIT
MINNESOTA POLLUTION CONTROL AGENCY (MPCA)	NPDES CONSTRUCTION PERMIT
LOWER MINNESOTA RIVER WATERSHED DISTRICT	EROSION AND SEDIMENT CONTROL PERMIT
CARVER COUNTY WATER MANAGEMENT ORGANIZATION	WATERSHED (REVIEW ONLY)
MINNESOTA DEPARTMENT OF NATURAL RESOURCES (MNDNR)	PUBLIC WATERS GENERAL PERMIT
ARMY CORPS OF ENGINEERS	TRGP

READ AND REVIEW ALL PERMITS FOR SPECIAL CONDITIONS THAT WILL AFFECT CONSTRUCTION OF THE PROJECT.

ARMY CORPS PERMIT IS NON REPORTING FOR THIS PROJECT. FOLLOW THE CONDITIONS IN THE GENERAL PERMIT FOR TRGP.

IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS, OPERATIONS SHOULD CEASE AND DETERMINATION MADE IF ADDITIONAL PERMITS ARE NEEDED OR EXISTING PERMITS NEED TO BE MODIFIED.

TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED FOR ROADWAY CONSTRUCTION AND UTILITY WORK. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT. SUBMIT A SITE MANAGEMENT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.

WATERBODY	NO WORK DURING
LAKES	APRIL 1 - JUNE 30
NON-TROUT STREAMS	MARCH 15 - JUNE 15
TROUT STREAMS	SEPTEMBER 1 - APRIL 1

SEE DNR PERMIT FOR MORE INFORMATION

SPECIAL AND IMPAIRED WATERS THAT ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE.

WATERBODY NAME	IMPAIRMENT(S) OR SPECIAL STATUS
MINNESOTA RIVER	IMPAIRED FOR NUTRIENTS; PCB IN FISH; TURBIDITY.
EAST CREEK	IMPAIRED FOR BENTHIC MACROINVERTEBRATE BIOASSESSMENTS; FECAL COLIFORM; FISHES BIOASSESSMENTS; TURBIDITY.
CHASKA CREEK	IMPAIRED FOR BENTHIC MACROINVERTEBRATE BIOASSESSMENTS; FISHES BIOASSESSMENTS.
COURTHOUSE LAKE	SPECIAL WATER TROUT LAKE.

AREAS OF ENVIRONMENTAL SENSITIVITY (AES)

WETLANDS AND EXISTING STORMWATER FACILITIES WITHIN AND NEAR THE PROJECT BOUNDARY ARE SHOWN ON DRAINAGE PLANS.

PROJECT ORGANIZATION CONTACTS		PHONE
CONTRACTOR'S EROSION AND SEDIMENT CONTROL SUPERVISOR		NUMBER
CONTRACTOR'S EROSION AND SEDIMENT CONTROL INSTALLER		NUMBER
MNDOT METRO WRE (EROSION CONTROL/MS4)	RYAN RUPP	651-775-4081
	SARAH THOMSON	651-775-0921
MNDOT METRO CONSTRUCTION PROJECT ENGINEER		NUMBER
MNDOT METRO CONSTRUCTION RESIDENT ENGINEER		651-234-XXXX
MNDOT METRO WATER RESOURCES (WRE) DESIGN	HAILU SHEKUR	651-234-7572
MNDOT METRO DESIGN		651-234-XXXX
MINNESOTA DEPARTMENT OF NATURAL RESOURCES (MNDNR)	TAYLOR HUINKER	651-259-5790
LOWER MINNESOTA RIVER WATERSHED DISTRICT	LINDA LOOMIS	763-545-4659
CARVER COUNTY WATER MANAGEMENT ORGANIZATION	KRISTEN LARSON	952-361-1824
ARMY CORP OF ENGINEERS	ST. PAUL DISTRICT -REGULATORY	651-290-5525
CITY PROJECT ENGINEER	MATT CLARK	952-448-4335
CITY INSPECTOR	BRAD FASBENDER	651-238-0603
MPCA CONTACT	JOSH NORMAN	651-757-2389

INSPECTION TIMEFRAMES

INSPECT THE ENTIRE CONSTRUCTION SITE A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECT ALL TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPS, SURFACE WATERS AND CONSTRUCTION SITE EXITS UNTIL ALL CONSTRUCTION IS COMPLETE AND THE SITE HAS UNDERGONE FINAL STABILIZATION. RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES IN WRITING WITHIN 24 HOURS. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT ENGINEER.

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SWPPP

SHEET 239 OF 359

Date/Time: 3/4/2022 ER1
Drawing: C:\Civil\Projects\...\sht_bh_infra01\dms80398\cp123211_er1.dwg
Xrefs: cp123211.bdr

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE (CONTINUED)

EROSION AND SEDIMENT CONTROL MEASURES

AREA	TIME FRAME
ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UPGRADIENT OF ANY BUFFER ZONES	BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN
REPAIR, REPLACE OR SUPPLEMENT PERIMETER CONTROL BMPS	WHEN BMP BECOMES NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT OF THE BMP BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY.
REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPS	BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY.
REPAIR, REPLACE, OR SUPPLEMENT INLET PROTECTION BMPS	WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT AND/OR DEPTH OF THE BMP BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY.
REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE (LIGHTLY WET PRIOR TO SWEEPING)	WITHIN 24 HOURS OF DISCOVERY
REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS AND RESTABILIZE	WITHIN 7 DAYS OF DISCOVERY

1. PROVIDE PERIMETER CONTROL AROUND ALL STOCKPILES AND DO NOT PLACE THEM IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES. TOPSOIL BERMS MUST BE STABILIZED IN ORDER TO BE CONSIDERED PERIMETER CONTROL BMPS.
2. PROTECT STORM SEWER INLETS AT ALL TIMES WITH THE APPROPRIATE INLET PROTECTION BMP AND PROVIDE EMERGENCY OVERFLOW CAPABILITIES. SILT FENCE PLACED IN THE INLET GRATE IS NOT AN ACCEPTABLE INLET PROTECTION BMP FOR GRADING OPERATIONS.
3. PLACE AND MAINTAIN CONSTRUCTION EXITS OF SUFFICIENT SIZE TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES BOTH ON AND OFF THE PROJECT SITE. REGULAR STREET SWEEPING IS NOT AN ACCEPTABLE ALTERNATIVE TO PROPER CONSTRUCTION EXIT INSTALLATION AND MAINTENANCE.
4. PROVIDE SCOUR PROTECTION AT OUTFALL OF DEWATERING ACTIVITIES. PROVIDE STABILIZATION IN TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.
5. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN AND CONTACT ALL APPROPRIATE AUTHORITIES PRIOR TO WORKING IN SURFACE WATERS.
6. MAINTAIN ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION FOR PERMIT TERMINATION, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

STABILIZATION

AREA	TIME FRAME	NOTES
LAST 200 LINEAL FEET OF DRAINAGE DITCH OR SWALE	WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER OR PROPERTY EDGE	2A, 3A
REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE	7 DAYS	3A
PIPE AND CULVERT OUTLETS	24 HOURS	
EXPOSED SOILS AND STOCKPILES	7 DAYS	1A
WHEN CONSTRUCTION HAS TEMP. OR PERM. CEASED	IMMEDIATELY	

1A. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE EXEMPT FROM THE STABILIZATION REQUIREMENT.

2A. STABILIZE WETTED PERIMETER OF DITCH (I.E. WHERE THE DITCH GETS WET).

3A. APPLICATION OF MULCH, HYDROMULCH (SLOPE>2%), DISCANCHORED MULCH (SLOPE>2%),TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN DITCHES AND SWALES.

MATERIAL STORAGE, WASTE MANAGEMENT, FUELING AND DUST CONTROL

1. PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE. ENSURE ALL SPILLS ARE CLEANED UP IMMEDIATELY.
2. STORE ALL LIQUID CHEMICALS UNDER COVER WITH SECONDARY CONTAINMENT. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.
3. FUEL AND MAINTAIN VEHICLES IN A DESIGNATED CONTAINED AREA WHENEVER FEASIBLE. USE DRIP PANS OR ABSORBENT MATERIALS TO PREVENT SPILLS OR LEAKED CHEMICALS FROM DISCHARGING TO SURFACE WATER OR STORMWATER CONVEYANCES.
4. PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND. DESIGN THE CONTAINMENT SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR CONTAINMENT AREA.
5. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.
6. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, STREET SWEEPING DUST, SAWCUT SLURRY, PLANING WASTE, CONCRETE WASH OUT, AND OTHER CONCRETE WASTES FROM LEAVING MNDOT RIGHT OF WAY, DEPOSITING IN EXISTING OR FUTURE VEGETATED AREAS, AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.
7. PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R. CHAPTER 7041.

IMPORTANT SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER'S ACCEPTANCE FOR CONCRETE MANAGEMENT, CONCRETE SLURRY APPLICATION AREAS, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS "SITE MANAGEMENT PLAN AREA", ANY WORK THAT WILL REQUIRE DEWATERING, AND AS REQUESTED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR MNDOT TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.
2. DO NOT BUILD INFILTRATION AREAS OR PLACE FINAL FILTRATION MEDIA UNTIL THE PROJECT IS NEARLY COMPLETE. PROTECT THESE AREAS FROM COMPACTION AND FROM CONSTRUCTION STORMWATER RUNOFF.
3. ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE.
4. CONSTRUCTION PROJECT SHOULD BE PHASED TO MINIMIZE THE DURATION OF EXPOSED SOILS.
5. MINIMIZE COMPACTION OF SOILS AND PRESERVE TOPSOIL IN AREAS WHERE VEGETATION WILL BE ESTABLISHED.
6. DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.
7. FLOATING SILT CURTAIN IS ALLOWED AS PERIMETER CONTROL FOR IN WATER WORK ONLY. PLACE THE FLOATING SILT CURTAIN AS CLOSE TO SHORE AS POSSIBLE. PLACE PERIMETER CONTROL BMP ON LAND IMMEDIATELY AFTER THE IN WATER WORK IS COMPLETED.
8. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE. (REQUIRED IF DRAINAGE AREA IS 10 ACRES OR LARGER OR 5 ACRES OR LARGER AND WITHIN 1 MILE OF IMPAIRED WATER) THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS. MUST DOCUMENT WHY SEDIMENT BASIN IS NOT FEASIBLE.
9. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.
10. PROVIDE A 50 FOOT NATURAL BUFFER OR, IF BUFFER IS INFEASIBLE, PROVIDE A DOUBLE ROW OF SEDIMENT CONTROLS SPACED AT LEAST 5' APART WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF LAND DISTURBANCE AND STORMWATER FLOWS TO THE SURFACE WATER.
11. PROVIDE A 100 FOOT NATURAL BUFFER OR, IF BUFFER IS INFEASIBLE, PROVIDE A DOUBLE ROW OF SEDIMENT CONTROLS SPACED AT LEAST 5' APART WHEN A SPECIAL WATER IS LOCATED WITHIN 100 FEET OF THE LAND DISTURBANCE AND STORMWATER FLOWS TO THE SPECIAL WATER.
12. SUBSOIL ALL DISTURBED GREEN SPACES EXCEPT AS LISTED IN 2574.3A.5.

PIPE AND STRUCTURE NOTES

1. SIZE AND ELEVATION OF CULVERTS, STORM SEWER PIPES, CATCH BASINS, PONDS, INFILTRATION/FILTRATION BASINS, PERMEABLE DITCH BLOCKS AND OVERFLOW DEVICES HAVE BEEN SPECIFICALLY DESIGNED TO CONFORM TO MNDOT DESIGN STANDARDS AND PERMIT REQUIREMENTS. THE DESIGN COMPUTATIONS ARE ON FILE WITH MNDOT METRO WATER RESOURCES. CHANGING THESE ITEMS OR THE DIRECTION OF FLOW FROM WHAT IS SHOWN ON THE PLANS MAY CAUSE PROBLEMS OFF THE PROJECT AND COULD MEAN THE PROJECT IS OUT OF COMPLIANCE WITH APPROVED DRAINAGE PERMITS. ANY CHANGES OF THE DRAINAGE SYSTEM MUST BE APPROVED BY THE METRO WATER RESOURCES DESIGNER.
2. PERFORM POST INSTALLATION MANDREL TESTING OF ALL PLASTIC PIPE.
3. SUBSURFACE DRAINAGE TILES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR REROUTED, AND CONNECTED TO THE EXISTING TILE OR DRAINAGE SYSTEM TO ENSURE THAT EXISTING UPLAND DRAINAGE IS PERPETUATED. THIS SHALL BE DONE TO THE APPROVAL AND SATISFACTION OF THE ENGINEER.

NPDES PERMIT TERMINATION CONDITIONS

1. PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70% OF ITS EXPECTED FINAL GROWTH.
2. PERMITTEES MUST REMOVE ANY ACCUMULATED SEDIMENT AND STABILIZE THE PERMANENT STORMWATER TREATMENT SYSTEM(S) AND MUST ENSURE THE SYSTEM(S) ARE OPERATING AS DESIGNED.
3. PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT.
4. PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMPS DESIGNED TO DECOMPOSE ON-SITE IN PLACE.
5. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND, PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT.

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ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

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S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SWPPP

SHEET 240 OF 359

Plotted: 03/16/2022 - 8:52:11 AM By: Jeffrey Thompson
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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE (CONTINUED)

INFILTRATION AND FILTRATION BASIN CONSTRUCTION NOTES

1. DURING CONSTRUCTION, REPORT ANY SIGNS OF HIGH WATER TABLE OR COMPACTION OF THE IN PLACE SOILS TO THE ENGINEER.
2. DO NOT STOCKPILE MATERIALS, DRIVE OR PARK EQUIPMENT OR VEHICLES IN A CONSTRUCTED FILTRATION OR INFILTRATION AREA.
3. DO NOT BUILD INFILTRATION AREAS OR PLACE FINAL FILTRATION MEDIA UNTIL THE PROJECT IS NEARLY COMPLETE. PROTECT THESE AREAS FROM COMPACTION AND FROM CONTSTRUCTION STORMWATER RUNOFF.
4. PLACE SEDIMENT CONTROL BMPS AT THE TOE OF THE ADJACENT SLOPE IMMEDIATELY AFTER PLACEMENT OF AMENDED TOPSOIL. STABILIZE SIDE SLOPES PRIOR TO PLACING ANY AMENDED TOPSOIL IN THE BOTTOM OF THE (IN)FILTRATION
5. SUBMIT A SITE MANAGEMENT PLAN TO THE ENGINEER FOR THE CONSTRUCTION OF (IN)FILTRATION AREAS.
6. DO NOT DRAIN TURBID OR SEDIMENT LADEN WATER TO THE FILTRATION AREA UNLESS FILTER MEDIA HAS NOT BEEN PLACED. DO NOT DRAIN SEDIMENT LADEN WATER TO AN INFILTRATION AREA.
7. WHEN BUILDING, USE ONLY LOW IMPACT VEHICLES WITHIN (IN)FILTRATION AREAS TO LIMIT COMPACTION. AREA.
8. EXCAVATE ANY SEDIMENT THAT WASHES INTO (IN)FILTRATION AREAS, IF DISTURBED REPAIR WITH 24 HOURS.

LANDSCAPING NOTES

1. FILTER LOGS SHALL BE PLACED, AS NEEDED, TO TRAP SEDIMENT ON THE LOWER EDGE OF BEDS OR TREE HOLES. FILTER LOGS WILL BE CUT AND MATERIALS LEFT TO ACT AS SEDIMENT TRAPS.
2. TILLING FOR BEDS OR TREE HOLES MUST BE PLANTED AND MULCHED WITH WOOD CHIP WITHIN 7 DAYS OR STABILIZED UNTIL PLANTING OPERATIONS CAN BE COMPLETED.
3. ANY POND CORNERS OPENED DUE TO TILLING FOR SHRUB BEDS OR TREE HOLES MUST BE PLANTED AND MULCHED WITH WOOD CHIP WITHIN 24 HOURS OR STRAW MULCHED UNTIL PLANTING OPERATIONS CAN BE COMPLETED.

LONG TERM MAINTENANCE AND OPERATION

MNDOT HAS ENTERED INTO A COOPERATIVE AGREEMENT WITH CITY OF CHASKA/CARVER COUNTY THAT IDENTIFIES THE AGENCY THAT IS RESPONSIBLE FOR ONGOING MAINTENANCE. SEE AGREEMENT NUMBER ###, ON FILE WITH MNDOT, FOR MORE INFORMATION.

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis MN 55402
www.stantec.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ALAN OFFERMAN
LIC. NO. 52624 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SWPPP

SHEET 241 OF 359

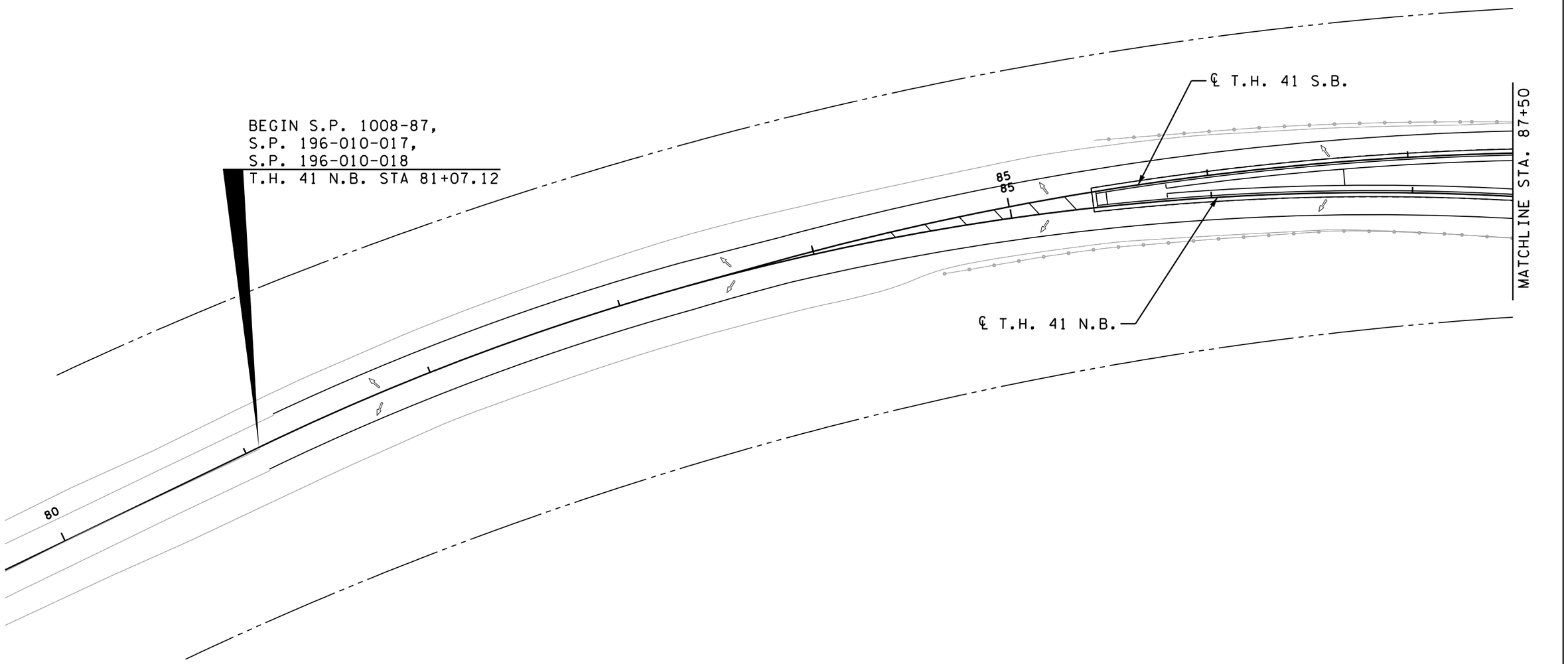
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Xrefs: cp123211_bdr

LEGEND

- SEED MIX 25-151 FERTILIZER TYPE 3 HYDRAULIC REINFORCED FIBER MATRIX
- SEED MIX 25-131 FERTILIZER TYPE 3 EROSION CONTROL BLANKET CATEGORY 25
- SEED MIX 35-241 FERTILIZER TYPE 4 EROSION CONTROL BLANKET CATEGORY 25
- TURF ESTABLISHMENT SHOWN IN POND GRADING PLAN
- PLANTING AREA (SEE STREETSCAPE PLANS)
- SUPERELEVATION TRANSITION
- CP — CULVERT END CONTROLS
- STORM DRAIN INLET PROTECTION
- MS — SILT FENCE (MACHINE SLICED)
- BR — SEDIMENT CONTROL LOG (SCL) TYPE WOOD FIBER
- FLOTATION SILT CURTAIN TYPE MOVING WATER
- PROPOSED FLOW ARROW
- EXISTING FLOW ARROW
- DELINEATED WETLAND
- RANDOM RIPRAP

NOTES:

1. WETTED PERIMETER OF THE LAST 200 FEET OF DITCHES MUST BE STABILIZED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR PROPERTY LINE. USE RAPID STABILIZATION, OR PERMANENT COVER ITEMS IF PERMANENT STABILIZATION IS COMPLETED.
2. STABILIZED CONSTRUCTION EXITS ARE REQUIRED WHERE CONSTRUCTION VEHICLES LEAVE THE SITE. CONTRACTOR SHALL PLACE AND MAINTAIN STABILIZED EXITS WHERE NEEDED TO PREVENT SEDIMENT TRACKING OFF SITE.
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6. TURF ESTABLISHMENT EXTENDS TO CONSTRUCTION LIMITS.
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BOLTON & MENK
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REV.	BY	DATE

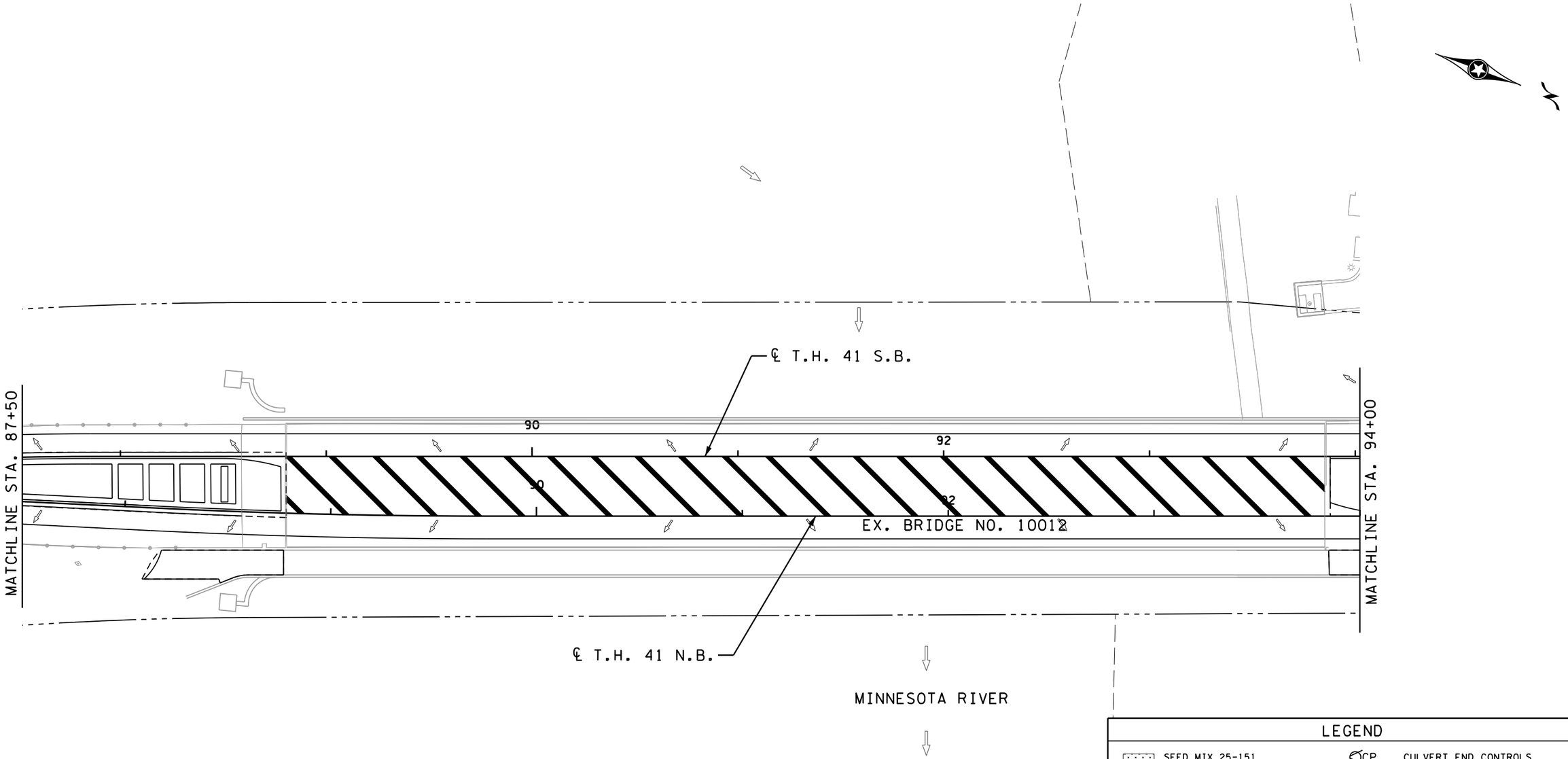
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JOHN L. PERKINS
LIC. NO. 56278 DATE 03-02-2022

DESIGNED	JLP
DRAWN	JLP
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 242 OF 359



NOTES:

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6. TURF ESTABLISHMENT EXTENDS TO CONSTRUCTION LIMITS.
7. WHEN WITHIN 100' OF A SPECIAL OR IMPAIRED WATER, REDUNDANT PERIMETER CONTROLS ARE REQUIRED.

LEGEND

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- SEED MIX 25-131 FERTILIZER TYPE 3 EROSION CONTROL BLANKET CATEGORY 25
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- SUPERELEVATION TRANSITION
- CP CULVERT END CONTROLS
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- MS SILT FENCE (MACHINE SLICED)
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- PROPOSED FLOW ARROW
- EXISTING FLOW ARROW
- DELINEATED WETLAND
- RANDOM RIPRAP

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BOLTON & MENK
12224 NICOLLET AVENUE
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Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

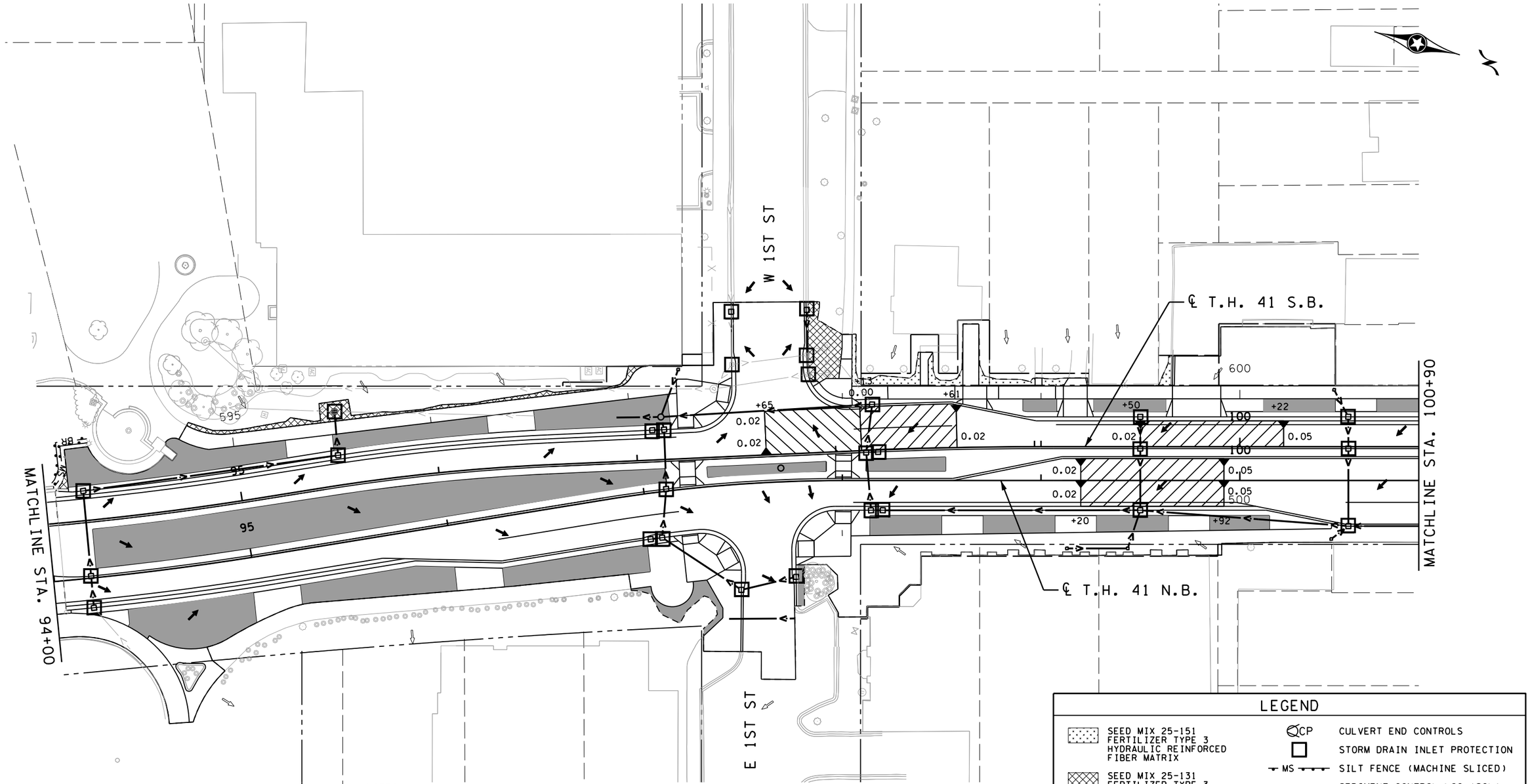
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TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 243 OF 359



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- RANDOM RIPRAP

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BOLTON & MENK
12224 NICOLLET AVENUE
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Email: Burnsville@bolton-menk.com
www.bolton-menk.com

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JOHN L. PERKINS
LIC. NO. 56278 DATE 03-02-2022

DESIGNED JLP
DRAWN JLP
CHECKED DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 244 OF 359

7.B. Adopt Resolution 2022-48, Approve...
Packet Page 273 of...
Page 245 of...

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- RANDOM RIPRAP

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REV.	BY	DATE

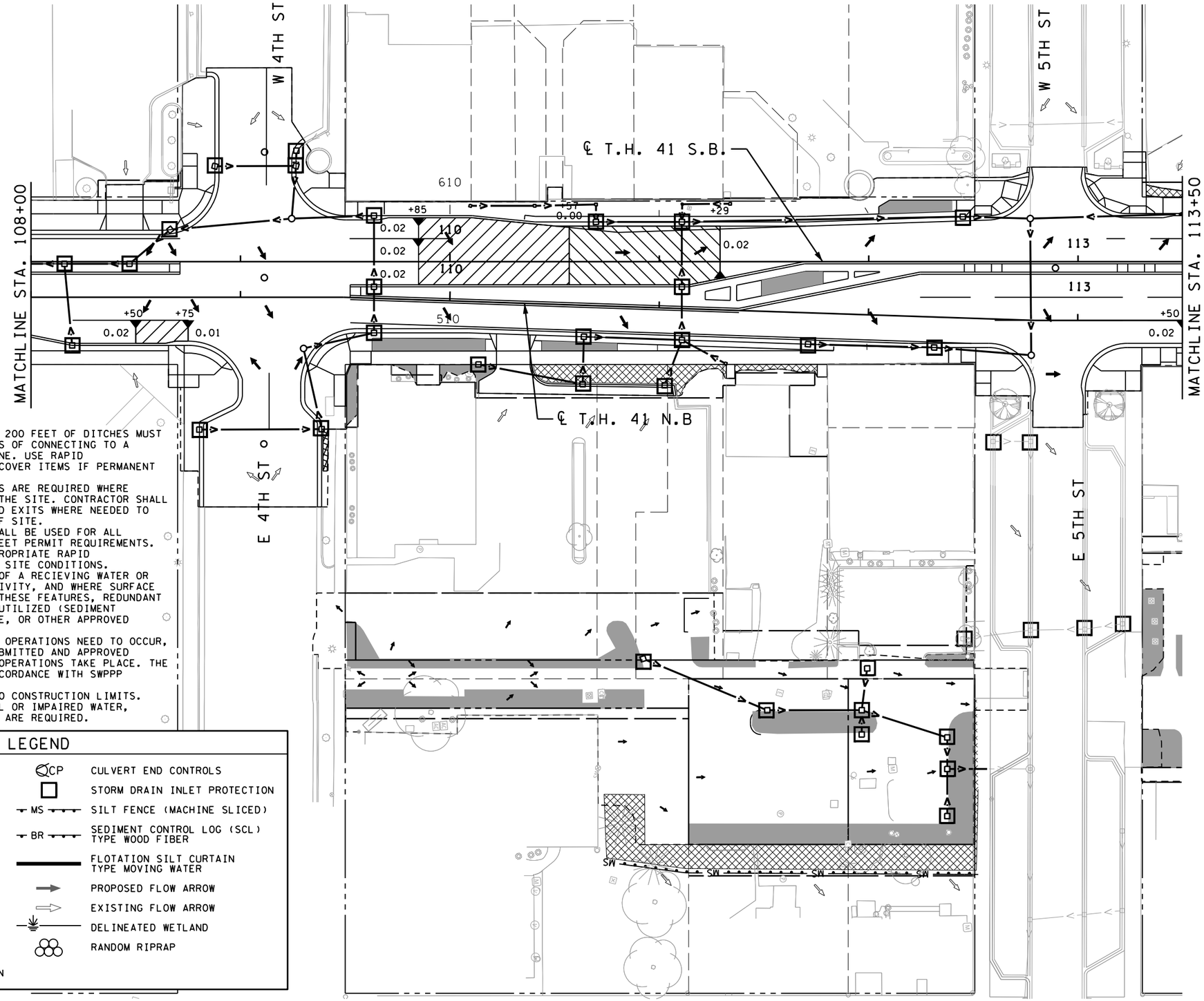
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JOHN L. PERKINS
LIC. NO. 56278 DATE 03-02-2022

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CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 245 OF 359



NOTES:

1. WETTED PERIMETER OF THE LAST 200 FEET OF DITCHES MUST BE STABILIZED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR PROPERTY LINE. USE RAPID STABILIZATION, OR PERMANENT COVER ITEMS IF PERMANENT STABILIZATION IS COMPLETED.
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LEGEND

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SEED MIX 25-131 FERTILIZER TYPE 3 EROSION CONTROL BLANKET CATEGORY 25	STORM DRAIN INLET PROTECTION
SEED MIX 35-241 FERTILIZER TYPE 4 EROSION CONTROL BLANKET CATEGORY 25	MS — SILT FENCE (MACHINE SLICED)
TURF ESTABLISHMENT SHOWN IN POND GRADING PLAN	BR — SEDIMENT CONTROL LOG (SCL) TYPE WOOD FIBER
PLANTING AREA (SEE STREETSCAPE PLANS)	FLOTATION SILT CURTAIN TYPE MOVING WATER
SUPERELEVATION TRANSITION	PROPOSED FLOW ARROW
	EXISTING FLOW ARROW
	DELINEATED WETLAND
	RANDOM RIPRAP

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JOHN L. PERKINS
LIC. NO. 56278 DATE 03-02-2022

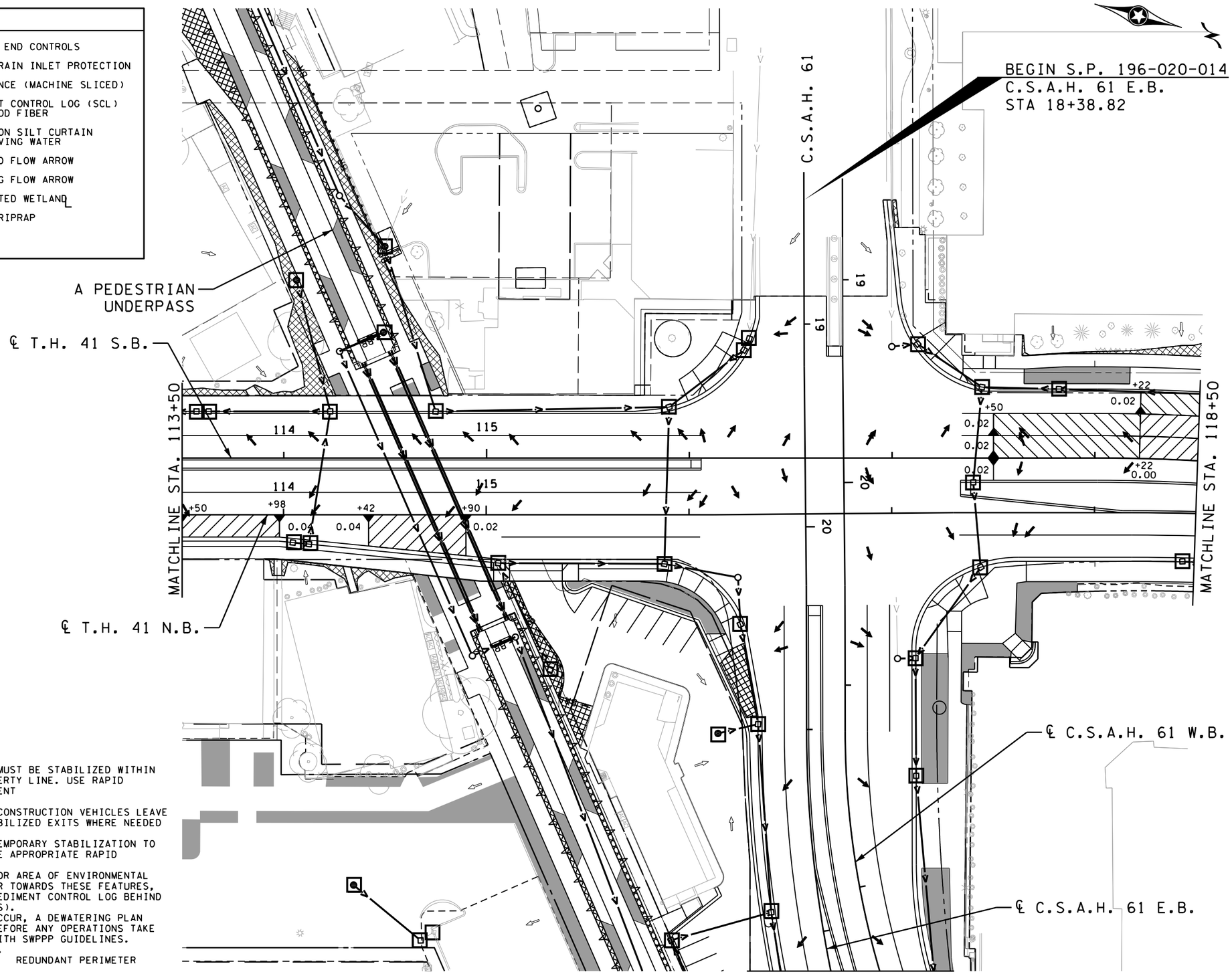
DESIGNED	JLP
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TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 246 OF 359

LEGEND

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5. IN THE EVENT THAT DEWATERING OPERATIONS NEED TO OCCUR, A DEWATERING PLAN MUST BE SUBMITTED AND APPROVED BY THE MnDOT ECM BEFORE ANY OPERATIONS TAKE PLACE. THE PLAN MUST BE DEVELOPED IN ACCORDANCE WITH SWPPP GUIDELINES.
6. TURF ESTABLISHMENT EXTENDS TO CONSTRUCTION LIMITS.
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BOLTON & MENK

12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
(952) 890-0509
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www.bolton-menk.com

REV.	BY	DATE

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JOHN L. PERKINS
LIC. NO. 56278 DATE 03-02-2022

DESIGNED	JLP
DRAWN	JLP
CHECKED	DMK

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 247 OF 359

FIREMEN'S CLAYHOLE

END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 118+50

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- SEED MIX 35-241 FERTILIZER TYPE 4 EROSION CONTROL BLANKET CATEGORY 25
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- STORM DRAIN INLET PROTECTION
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- PROPOSED FLOW ARROW
- EXISTING FLOW ARROW
- DELINEATED WETLAND
- RANDOM RIPRAP

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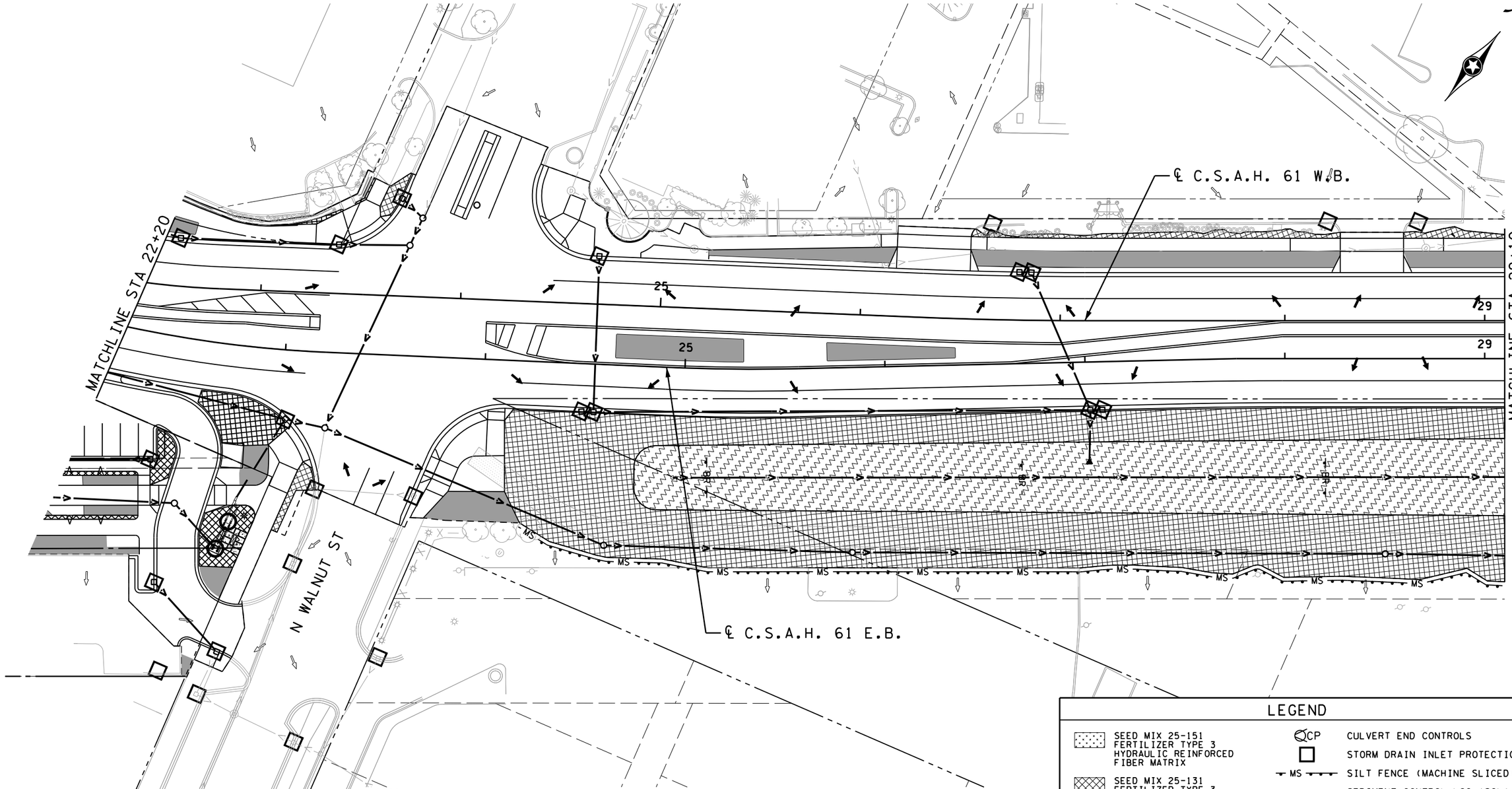
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CHECKED	DMK

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 248 OF 359



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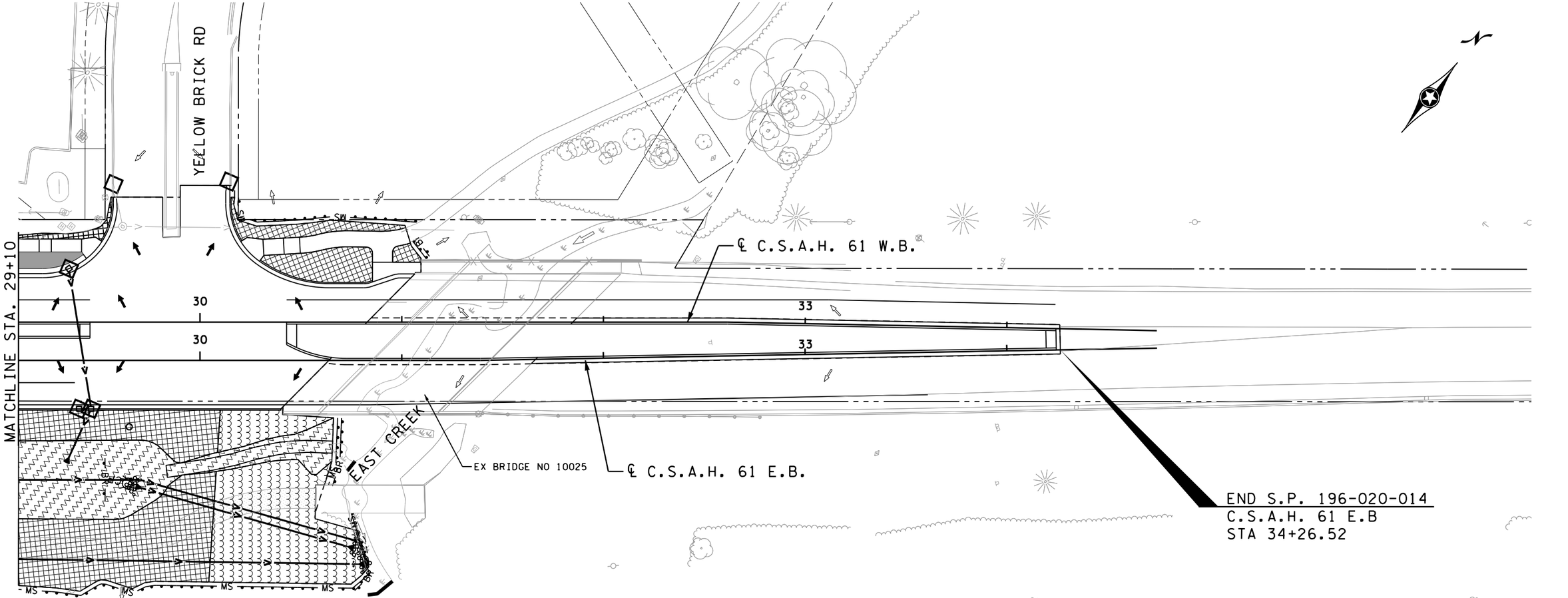
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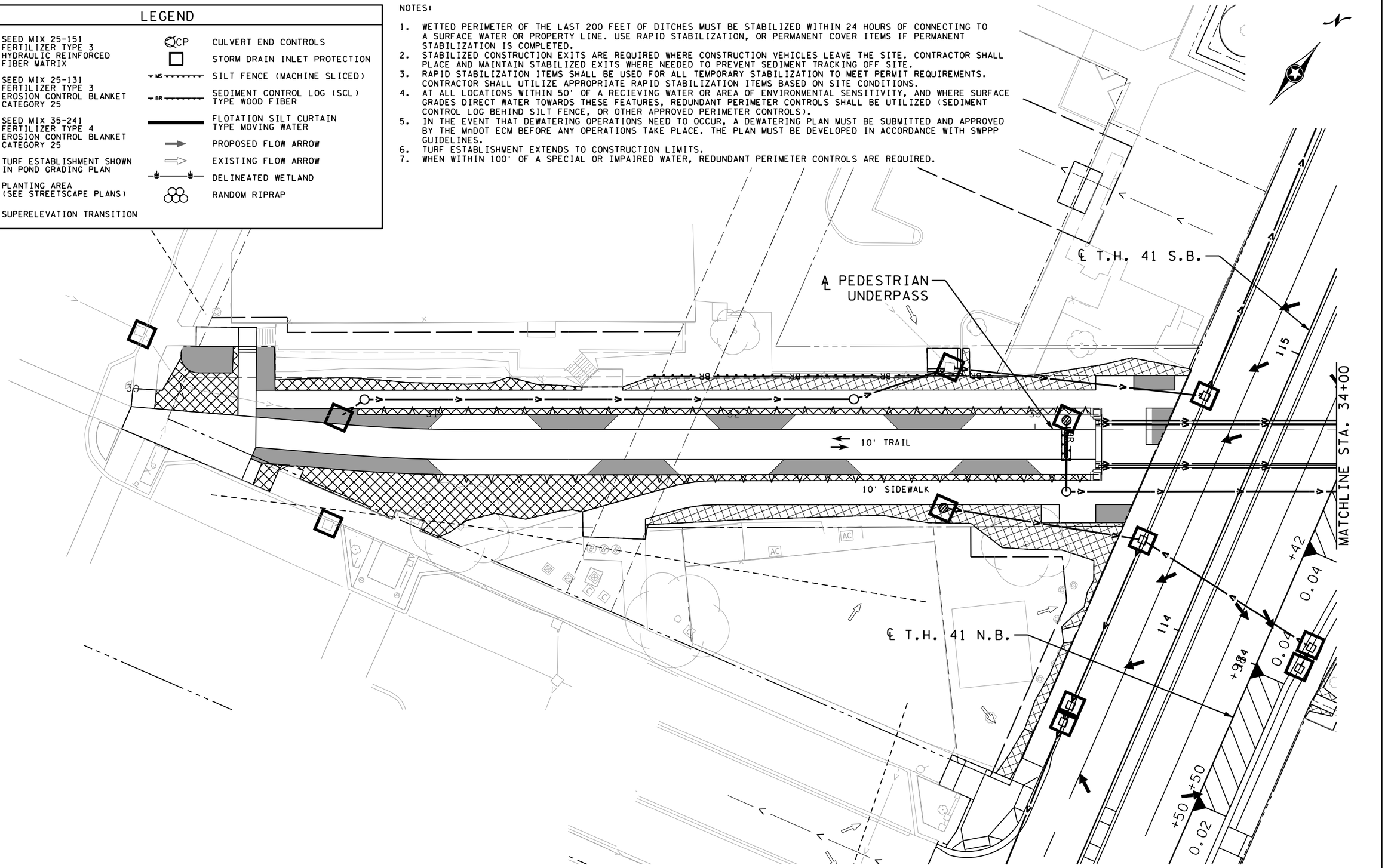
SHEET 250 OF 359

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TURF ESTABLISHMENT, EROSION CONTROL & SUPERELEVATION PLAN

SHEET 251 OF 359

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℄ T.H. 41 N.B.

℄ C.S.A.H. 61 E.B.

℄ PEDESTRIAN UNDERPASS

MATCHLINE STA. 34+00

10' TRAIL

10' SIDEWALK

N WALNUT ST

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SHEET 252 OF 359

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PERMANENT SIGNING & PAVEMENT MARKING PLAN

NOTES & GUIDELINES

NOTES & GUIDELINES

GENERAL INFORMATION:

1. SEE 2582 IN THE SPECIAL PROVISIONS FOR PAVEMENT MARKING SPOTTING RESPONSIBILITIES.
2. EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS, AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY AN AGENCY PLACED YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE MAINLINE RADIUS.
3. DO NOT APPLY THE PAVEMENT MARKINGS WHEN WEATHER AND OTHER CONDITIONS CAUSE A FILM OF DUST OR DEBRIS TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL IS APPLIED.
4. THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

SIGNING SYMBOLS

- SIGN
- SIGN BACK TO BACK
- SIGN ON LIGHT POLE
- SIGN ON ROUND POST
- SIGN ON ROUND POST BACK TO BACK

STANDARD PLANS

NUMBER	DESCRIPTION
5-297.730	SIGN MOUNTING SYSTEMS FOR ROUND SUPPORTS
5-297.731	SIGN MOUNTING DETAILS FOR SIGNAL MAST ARMS

PERMANENT SIGNING & PAVEMENT MARKING PLAN INDEX

253 TITLE SHEET
254-260 TABULATIONS
261-269 EXISTING SIGNING PLAN
270-278 PROPOSE SIGNING AND STRIPING PLAN
279 PANEL LAYOUTS
280-289 DETAILS
290-293 TYPICALS

SYMBOLS & MATERIALS LEGEND

- BROKEN LINE-50' CYCLE (10' LINE, 40' GAP)
- DOTTED LINE-15' CYCLE (3' LINE, 12' GAP), UNLESS SHOWN OTHER WISE IN THE PLAN
- CROSSWALK BLOCK PREF THERMO GR IN (ESR)
- PAVEMENT MESSAGE (LEFT ARROW) PREF THERMO GR IN
- PAVEMENT MESSAGE (RIGHT ARROW) PREF THERMO GR IN UNLESS SHOWN OTHER WISE IN THE PLAN
- PAVEMENT MESSAGE (LEFT-THRU ARROW) MULTI-COMP
- PAVEMENT MESSAGE (ONLY) PREF THERMO GR IN

STRIPING KEY

CIRCLE-MULTI COMP — OCTAGON-PREF THERMO

1ST DIGIT WIDTH	2ND DIGIT PATTERN	3RD DIGIT COLOR
4", 8", ETC.	S - SOLID B - BROKEN T - DOTTED D - DOUBLE SOLID K - DOUBLE BROKEN H - DOUBLE DOTTED	W - WHITE Y - YELLOW B - BLACK

G=GROUND IN, C=CONTRAST — W=WET REFLECTIVE, E=ENHANCED SKID RESISTANCE

EXAMPLE: 4SW (GCW) = 4" SOLID LINE WHITE PREF THERMO GROUND IN, CONTRAST, WET REFLECTIVE

I HEREBY CERTIFY THAT SHEETS 253 THROUGH 293 OF THIS PLAN WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: MICHAEL S. LARSON LICENSE #58850

DATE: 03-02-2021 SIGNATURE: Michael S Larson

DESIGNER MICHAEL P. NAROW

PERMANENT SIGNING & PAVEMENT MARKING TITLE SHEET

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SIGN AND DELINEATOR / MARKER

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	SIGN NUMBER	PANEL						SUPPORT			REMOVE SIGN	SIGN	SALVAGE SIGN	SALVAGE SIGN PANEL	INSTALL SIGN PANEL	INSTALL SIGN	DELINEATOR /MARKER	DELINEATOR /MARKER PANEL
		PANEL CODE	LEGEND	SIZE (W x H)	AREA	MOUNTING HEIGHT	A DISTANCE	TYPE	RISER POST SIZE	NUMBER OF POSTS								
				INCH	SQ FT	FEET	FEET		INCHES		EACH	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH
	SP 1008-87 (TH 41) SP 196-010-017: SECTION 1																	
	S-1	R2-1	SPEED LIMIT 50	x	0.00						1							
	S-2	R2-1	SPEED LIMIT 30	x	0.00						1							
	S-3	W9-2L	LANE ENDS MERGE LEFT	x	0.00						1							
	S-4	W1-2R	CURVE RIGHT	x	0.00						1							
	S-5	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W7-3aP	NEXT 1/2 MILES PLAQUE	x	0.00													
	S-5.1	R2-1	SPEED LIMIT 30	x	0.00						1							
			VEHICLE FEEDBACK SIGN	x	0.00								1					
	S-6	W9-1R	RIGHT LANE ENDS	x	0.00						1							
		W16-2P	600 FEET PLAQUE	x	0.00													
	S-7	R2-1	SPEED LIMIT 30	x	0.00						1							
	S-8	W9-1R	RIGHT LANE ENDS	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-9	R5-1	DO NOT ENTER	x	0.00						1							
(1)	S-10	R6-1R	ONE WAY RIGHT	x	0.00	7		SQ-CONC	2	1	1			2		2		
			FIRST ST W	x														
		R1-1	STOP	x														
			NO PARKING	x	0.00													
	S-11	R6-1R	ONE WAY RIGHT	x	0.00						1							
		R6-1R	ONE WAY RIGHT	x	0.00													
(1)	S-12	R6-1R	ONE WAY RIGHT	x	0.00	7		SQ-SOIL	2	1	1			2		2		
			FIRST ST E	x														
		R1-1	STOP	x	0.00													
	S-13	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-14	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-15	R5-1	DO NOT ENTER	x	0.00						1							
	S-16		NO TRUCKS NO TURNS	x	0.00						1							
	S-17	R5-1	DO NOT ENTER	x	0.00						1							
	S-18	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-19	W9-1R	RIGHT LANE ENDS	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-20	R2-1	SPEED LIMIT 30	x	0.00						1							
	S-21	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-22	W9-1R	RIGHT LANE ENDS	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-23	R5-1	DO NOT ENTER	x	0.00						1							
	S-24		NO PARKING OR STOPPING	x	0.00						1							
	S-25		NO PARKING OR STOPPING	x	0.00						1							
	S-26	R5-1	DO NOT ENTER	x	0.00						1							
(1)	S-27		THIRD ST W	x		7		SQ-CONC	2	1	1			2		2		
		R1-1	STOP	x	0.00													
	S-28	R6-1R	ONE WAY RIGHT	x	0.00						1							
		R6-1R	ONE WAY RIGHT	x	0.00													
(1)	S-29		THIRD ST E	x		7		SQ-CONC	2	1	1			2		2		
		R1-1	STOP	x	0.00													
	S-30	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-31	R5-1	DO NOT ENTER	x	0.00						1							
	S-32		NO PARKING	x	0.00						1							
	S-33	R2-1	SPEED LIMIT 30	x	0.00						1							
	S-34	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													

SPECIFIC NOTE(S):
(1) MOUNT BACK TO BACK.

TABULATIONS

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 254 OF 359

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SIGN AND DELINEATOR / MARKER

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	SIGN NUMBER	PANEL CODE	LEGEND	SIZE (W x H)	AREA	MOUNTING HEIGHT	A DISTANCE	SUPPORT TYPE	SUPPORT RISER POST SIZE	SUPPORT NUMBER OF POSTS	REMOVE SIGN	SIGN	SALVAGE SIGN	SALVAGE SIGN PANEL	INSTALL SIGN PANEL	INSTALL SIGN	DELINEATOR /MARKER	DELINEATOR /MARKER PANEL
		PANEL		INCH	SQ FT	FEET	FEET		INCHES		EACH	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH
	S-35	R5-1	DO NOT ENTER	x	0.00						1							
	S-36		ENTER ONLY	x	0.00						1							
	S-37	W9-1R	RIGHT LANE ENDS	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-38		NO PARKING	x	0.00						1							
	S-39		NO PARKING	x	0.00						1							
			NO PARKING	x	0.00													
	S-40	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-41	R4-7	KEEP RIGHT	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-42	R5-1	DO NOT ENTER	x	0.00						1							
	S-43	R5-1	DO NOT ENTER	x	0.00						1							
	S-44	R5-1	DO NOT ENTER	x	0.00						1							
	S-45	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
(1)	S-46		FIFTH ST W	x		7		SQ-CONC	2	1	1			2		2		
		R1-1	STOP	x	0.00													
	S-47	R6-1R	ONE WAY RIGHT	x	0.00						1							
		R6-1R	ONE WAY RIGHT	x	0.00													
(1)	S-48	R6-1R	ONE WAY RIGHT	x	0.00	7		SQ-CONC	2	1	1			2		2		
			FIFTH ST E	x														
		R1-1	STOP	x	0.00													
	S-49	R8-3	NO PARKING	x	0.00						1							
	S-50	R5-1	DO NOT ENTER	x	0.00						1							
	S-51	D4-1R	PARKING RIGHT	x	0.00						1							
		I-8	LIBRARY	x	0.00													
			ARROW RIGHT	x	0.00													
			CITY HALL & LICENSE CENTER	x	0.00													
			MINNESOTA VALLEY TRAILS	x	0.00													
	S-52	R3-7L	LEFT LANE MUST TURN LEFT	x	0.00						1							
		R4-7	KEEP RIGHT	x														
		OM2-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-53		SEMI TRUCKS NO TURNS	x	0.00						1							
			NEXT 4 BLOCKS	x	0.00													
	S-54	R8-3	NO PARKING	x	0.00						1							
	S-55	D10-1	MILE 2	x	0.00						1							
		D10-1	MILE 2	x	0.00													
	S-56	R8-3	NO PARKING	x	0.00						1							
Ⓐ	S-59	R3-7R	RIGHT LANE MUST TURN RIGHT	x	0.00						1							
	S-60	M3-1	NORTH (BLUE)	x	0.00						1							
		M1-5M	MINNESOTA HWY 41	x	0.00													
	S-61	D14-X1	ADOPT A HIGHWAY	60 x 36	15.00	7		SQ-SOIL	2-1/2	1			1			1		
	S-62	R1-1	STOP	x	0.00						1							
		X4-3	CYLINDER STYLE DELINEATOR	x	0.00													
	S-63	W3-3	SIGNAL AHEAD	x	0.00						1							
	S-64	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-65	W11-2	PEDESTRIAN CROSSING	x	0.00						1							
		W16-7PL	DOWN ARROW LEFT PLAQUE	x	0.00													
	S-65.1	R4-7	KEEP RIGHT	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-65.2	R2-1	SPEED LIMIT 30	x	0.00						1							
			VEHICLE FEEDBACK SIGN	x	0.00								1					
								SP 1008-87 (TH 41) SP 196-010-017: SECTION 1 SUBTOTALS			64	0	3	12	0	13	0	0

SPECIFIC NOTE(S):
(1) MOUNT BACK TO BACK.
Ⓐ PAID FOR UNDER SP 196-020-014 (CSAH 61).

TABULATIONS

BOLTON & MENK
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Michael S. Larson
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

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SIGN AND DELINEATOR / MARKER

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	SIGN NUMBER	PANEL CODE	LEGEND	SIZE (W x H) INCH	AREA SQ FT	MOUNTING HEIGHT FEET	A DISTANCE FEET	SUPPORT TYPE	SUPPORT RISER POST SIZE INCHES	SUPPORT NUMBER OF POSTS	REMOVE SIGN EACH	SIGN SQ FT	SALVAGE SIGN EACH	SALVAGE SIGN PANEL EACH	INSTALL SIGN PANEL EACH	INSTALL SIGN EACH	DELINEATOR /MARKER EACH	DELINEATOR /MARKER PANEL EACH
	SP 196-020-014 (CSAH 61): SECTION 1																	
	S-66	NOT USED																
	S-67	M1-X4	CARVER COUNTY 61	x	0.00	7		U	2	2	1							
		D14-X1	ADOPT A HIGHWAY	30 x 24	5.00								1			1		
	S-68		RIGHT TURN LANE	x	0.00						1							
	S-69	R4-7	KEEP RIGHT	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-70	R4-7	KEEP RIGHT	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-71	W9-1R	RIGHT LANE ENDS	x	0.00						1							
	S-72	M2-1	JCT (BLUE)	x	0.00						1							
		M1-5M	MINNESOTA HWY 41	x	0.00													
	S-73	NOT USED																
	S-74	R3-7R	RIGHT LANE MUST TURN RIGHT	x	0.00						1							
	S-75	R2-1	SPEED LIMIT 30	x	0.00						1							
	S-76	R1-1	STOP	36 x 36	9.00	7		U		2	1	9.00						
(1)			CHASKA BLVD	x	0.00									1	1			
			CHASKA BLVD	x	0.00									1	1			
(1)			YELLOW BRICK RD	x	0.00									1	1			
			YELLOW BRICK RD	x	0.00									1	1			
	S-77	W9-2L	LANE ENDS MERGE LEFT	x	0.00						1							
	S-78	R4-7	KEEP RIGHT	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
	S-79	R4-7	KEEP RIGHT	x	0.00						1							
		OM1-2	TYPE 1 OBJECT MARKER	x	0.00													
										SP 196-020-014 (CSAH 61): SECTION 1 SUBTOTALS	13	9	1	4	4	1	0	0
	SP 1008-87 (TH 41) SP 196-010-017: SECTION 2																	
	S-80	W6-1	DIVIDED HIGHWAY BEGIN	36 x 36	9.00	7		SQ-SOIL	2	1		9.00						
	S-81	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-SOIL	2-1/2	1		6.25						
	S-82	W6-3	TWO WAY TRAFFIC	36 x 36	9.00	7		SQ-SOIL	2	1		9.00						
	S-83	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
	S-84	R2-1	SPEED LIMIT 50	24 x 30	5.00	7		SQ-SOIL	2	1		5.00						
	S-85	R2-1	SPEED LIMIT 30	30 x 36	7.50	7		SQ-SOIL	2	1		7.50						
	S-86	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
	S-87	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
	S-88	W1-2R	CURVE RIGHT	18 x 18	2.25	7		SQ-SOIL	2	1		2.25						
	S-89	NOT USED																
	S-90	NOT USED																
	S-91	NOT USED																
	S-92	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-SOIL	2	1		6.25						
	S-93	W11-2	PEDESTRIAN CROSSING	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
		W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12	2.00							2.00						
	S-94	NOT USED																
	S-95	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-96	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-SOIL	2-1/2	1		3.00						
		R1-1	STOP	36 x 36	9.00							9.00						
(1)	S-97	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-SOIL	2	1		3.00						
		R6-1R	ONE WAY RIGHT	36 x 12	3.00							3.00						
	S-98	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-CONC	2-1/2	1		3.00						
		R1-1	STOP	36 x 36	9.00							9.00						
	S-99	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-100	NOT USED																

SPECIFIC NOTE(S):
(1) MOUNT BACK TO BACK.

TABULATIONS

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LIC. NO. 58850 DATE 03-02-2022

DESIGNED MPN
DRAWN MPN
CHECKED MSL

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SIGNING & STRIPING PLAN

SHEET 256 OF 359

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SIGN AND DELINEATOR / MARKER

U

SIGN NUMBER	PANEL						SUPPORT			REMOVE SIGN	SIGN	SALVAGE SIGN	SALVAGE SIGN PANEL	INSTALL SIGN PANEL	INSTALL SIGN	DELINEATOR /MARKER	DELINEATOR /MARKER PANEL
	PANEL CODE	LEGEND	SIZE (W x H)	AREA	MOUNTING HEIGHT	A DISTANCE	TYPE	RISER POST SIZE	NUMBER OF POSTS								
			INCH	SQ FT	FEET	FEET		INCHES		EACH	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH
S-101	W11-2	PEDESTRIAN CROSSING	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12	2.00							2.00						
S-102	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-103	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-104	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-104.1	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-105	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-SOIL	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-106	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-SOIL	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-106.1	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-107	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-108	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-109	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-110	W11-2	PEDESTRIAN CROSSING	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12	2.00							2.00						
S-111	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-112	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-CONC	2-1/2	1		3.00						
	R1-1	STOP	36 x 36	9.00							9.00						
(1) S-113	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-SOIL	2	1		3.00						
	R6-1R	ONE WAY RIGHT	36 x 12	3.00							3.00						
S-114	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-CONC	2-1/2	1		3.00						
	R1-1	STOP	36 x 36	9.00							9.00						
S-115	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-116	NOT USED																
S-117	W11-2	PEDESTRIAN CROSSING	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12	2.00							2.00						
S-118	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-119	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-120	R6-1R	ONE WAY RIGHT	36 X 12	3.00	7		SQ-CONC	2	1		3.00						
S-121	R2-1	SPEED LIMIT 30	24 X 30	5.00	7		SQ-SOIL	2	1		5.00						
S-122	M3-3	SOUTH (BLUE)	24 x 12	2.00	7		SQ-SOIL	2	1		2.00						
	M1-5M	MINNESOTA HWY 41	24 x 24	4.00							4.00						
S-123	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-123.1	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-124	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-125	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-126	M2-1	JCT (WHITE)	21 x 15	2.19	7		SQ-CONC	2	1		2.19						
	M1-X4	CARVER COUNTY 61	24 x 24	4.00							4.00						
S-126.1	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-127	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-128	R6-1R	ONE WAY RIGHT	36 X 12	3.00	7		SQ-CONC	2	1		3.00						
S-129	R3-8ABD	L-L-TR	54 x 30	11.25	7		SQ-CONC	2-1/2	2		11.25						
S-130	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						

SPECIFIC NOTE(S):
(1) MOUNT BACK TO BACK.

TABULATIONS

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12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: 952-890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 257 OF 359

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SIGN AND DELINEATOR / MARKER

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	SIGN NUMBER	PANEL CODE	LEGEND	SIZE (W x H)	AREA	MOUNTING HEIGHT	A DISTANCE	SUPPORT TYPE	RISER POST SIZE	NUMBER OF POSTS	REMOVE SIGN	SIGN	SALVAGE SIGN	SALVAGE SIGN PANEL	INSTALL SIGN PANEL	INSTALL SIGN	DELINEATOR /MARKER	DELINEATOR /MARKER PANEL
		PANEL		INCH	SQ FT	FEET	FEET		INCHES		EACH	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH
	S-131	R3-8AB	L-L	36 x 30	7.50	7		SQ-CONC	2	1		7.50						
	S-132	NOT USED																
	S-133	W11-2	PEDESTRIAN CROSSING	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
		W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12	2.00							2.00						
	S-134	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-135	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-CONC	2-1/2	1		3.00						
		R1-1	STOP	36 x 36	9.00							9.00						
(1)	S-136	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-CONC	2	1		3.00						
		R6-1R	ONE WAY RIGHT	36 x 12	3.00							3.00						
	S-137	R6-1R	ONE WAY RIGHT	24 x 12	2.00	7		SQ-CONC	2-1/2	1		2.00						
		R1-1	STOP	36 x 36	9.00							9.00						
	S-138	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-139	W11-2	PEDESTRIAN CROSSING	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
		W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12	2.00							2.00						
	S-140	NOT USED																
	S-141	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-142	M3-3	SOUTH (BLUE)	24 x 12	2.00	7		SQ-SOIL	2	1		2.00						
		M1-5M	MINNESOTA HWY 41	24 x 24	4.00							4.00						
	S-143	R3-8CD	T-TR	36 x 30	7.50	7		SQ-CONC	2	2		7.50						
	S-144	R3-8AB	L-L	36 x 30	7.50	7		SQ-CONC	2	1		7.50						
	S-145	D10-1	MILE 2	10 x 18	1.25	4		SQ-CONC	1-3/4	1		1.25						
	S-145.1	D10-1	MILE 2	10 x 18	1.25	4		SQ-CONC	1-3/4	1		1.25						
	S-145.2	R5-1	DO NOT ENTER	36 x 36	9.00	7		SQ-CONC	2	1		9.00						
	S-146	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
Ⓐ	S-147	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
Ⓐ	S-147.1	R5-1	DO NOT ENTER	36 x 36	9.00	7		SQ-CONC	2	1		9.00						
Ⓐ	S-148	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-149	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
	S-149.1	R5-1	DO NOT ENTER	36 x 36	9.00	7		SQ-CONC	2	1		9.00						
	S-150	OM3-L	TYPE 3 OBJECT MARKER LEFT	12 x 36	3.00	4		SQ-CONC	1-3/4	1							1	
	S-151	M3-1	NORTH (BLUE)	24 x 12	2.00	7		SQ-CONC	2	1		2.00						
		M1-5M	MINNESOTA HWY 41	24 x 24	4.00							4.00						
	S-152	NOT USED																
	S-153	R5-1	DO NOT ENTER	36 x 30	7.50	7		SQ-SOIL	2	1		7.50						
	S-154	R6-1R	ONE WAY RIGHT	36 X 12	3.00	7		SQ-CONC	2	1		3.00						
	S-155	R3-7L	LEFT LANE MUST TURN LEFT	36 x 36	9.00	7		SQ-CONC	2	1		9.00						
	S-156	R1-1	STOP	36 x 36	9.00	7		SQ-SOIL	2-1/2	1		9.00						
	S-157	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-158	R6-1R	ONE WAY RIGHT	36 X 12	3.00	7		SQ-CONC	2	1		3.00						
	S-159	R1-1	STOP	36 x 36	9.00	7		SQ-SOIL	2-1/2	1		9.00						
	S-160	R3-7R	RIGHT LANE MUST TURN RIGHT	36 x 36	9.00	7		SQ-CONC	2	1		9.00						
	S-161	R10-6L	STOP HERE ON RED LEFT	24 x 36	6.00	7		SQ-SOIL	2	1		6.00						
	S-162	M1-X4	CARVER COUNTY 61	24 x 24	4.00	7		SQ-CONC	2	1		4.00						
		M6-4	DOUBLE ARROW (WHITE)	21 x 15	2.19							2.19						
	S-163	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	S-164	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
	S-165	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
		OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
(1)		R10-15ML	LEFT TURNING VEHICLES STOP FOR PEDS	30 x 30	6.25	7						6.25						
	S-166	R10-6L	STOP HERE ON RED LEFT	24 x 36	6.00	7		SQ-CONC	2	1		6.00						
	S-167	R2-1	SPEED LIMIT 30	30 X 36	7.50	7		SQ-SOIL	2	1		7.50						
								SP 1008-87 (TH 41) SP 196-010-017: SECTION 2 SUBTOTALS			0	560	0	0	0	0	1	11

SPECIFIC NOTE(S):
(1) MOUNT BACK TO BACK.
Ⓐ PAID FOR UNDER SP 196-020-014 (CSAH 61).

TABULATIONS

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SHEET 258 OF 359

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SIGN AND DELINEATOR / MARKER

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SIGN NUMBER	PANEL CODE	LEGEND	PANEL SIZE (W x H) INCH	PANEL AREA SQ FT	MOUNTING HEIGHT FEET	A DISTANCE FEET	SUPPORT TYPE	SUPPORT RISER POST SIZE INCHES	SUPPORT NUMBER OF POSTS	REMOVE SIGN EACH	SIGN SQ FT	SALVAGE SIGN EACH	SALVAGE SIGN PANEL EACH	INSTALL SIGN PANEL EACH	INSTALL SIGN EACH	DELINEATOR /MARKER EACH	DELINEATOR /MARKER PANEL EACH
SP 196-020-014 (CSAH 61): SECTION 2																	
(1) S-168	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25													
S-169	M1-X4	CARVER COUNTY 61	24 x 24	4.00	7		U		2		4.00						
S-170	M1-5M	MINNESOTA HWY 41	24 x 24	4.00	7		SQ-CONC	2	1		4.00						
	M6-4	DOUBLE ARROW (BLUE)	21 x 15	2.19													
S-170.1	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-171	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-172	R3-7R	RIGHT LANE MUST TURN RIGHT	30 x 30	6.25	7		U		2		6.25						
S-173	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-174	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-175	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-176	OM3-L	TYPE 3 OBJECT MARKER LEFT	12 x 36	3.00	4		SQ-CONC	1-3/4	1							1	
S-177	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-178	W9-1R	RIGHT LANE ENDS	36 x 36	9.00	7		U		2		9.00						
S-179	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		U		2		3.00						
S-180	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC		2		6.25						
S-181	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-182	R3-8ACD	L-T-TR	48 x 30	10.00	7		U		2		10.00						
S-183	R3-7L	LEFT LANE MUST TURN LEFT	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-184	R6-1R	ONE WAY RIGHT	36 x 12	3.00	7		SQ-CONC	2	1		3.00						
S-185	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-186	M2-1	JCT (BLUE)	21 x 15	2.19	7		U		2		2.19						
	M1-5M	MINNESOTA HWY 41	24 x 24	4.00							4.00						1
S-187	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-188	W9-2L	LANE ENDS MERGE LEFT	36 x 36	9.00	7		U		2		9.00						
S-189	NOT USED																
S-190	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-191	R5-1	DO NOT ENTER	30 x 30	6.25	7		SQ-CONC	2	1		6.25						
S-192	OM3-L	TYPE 3 OBJECT MARKER LEFT	12 x 36	3.00	4		SQ-CONC	1-3/4	1							1	
S-193	R4-7	KEEP RIGHT	24 x 30	5.00	7		SQ-CONC	2	1		5.00						
	OM1-2	TYPE 1 OBJECT MARKER	18 x 18	2.25	4												1
S-194	P1	CARVER COUNTY GOVERNMENT CENTER L	84 x 48	28.00		13	MA				28.00						
S-195	P2	CARVER COUNTY GOVERNMENT CENTER R	84 x 48	28.00		14	MA				28.00						
SP 196-020-014 (CSAH 61): SECTION 2 SUBTOTALS										0	216	0	0	0	0	2	9
SP 196-020-014 (CSAH 61): SECTION 1 SUBTOTALS										13	9	1	4	4	1	0	0
SP 196-020-014 (CSAH 61): TOTALS										**13**	**225**	**1**	**4**	**4**	**1**	**2**	**9**
SP 1008-87 (TH 41) SP 196-010-017: SECTION 1 SUBTOTALS										64	0	3	12	0	13	0	0
SP 1008-87 (TH 41) SP 196-010-017: SECTION 2 SUBTOTALS										0	560	0	0	0	0	1	11
SP 1008-87 (TH 41) SP 196-010-017: TOTALS										**64**	**560**	**3**	**12**	**0**	**13**	**1**	**11**
PROJECT TOTALS										**77**	**785**	**4**	**16**	**4**	**14**	**3**	**20**

SPECIFIC NOTE(S):
(1) MOUNT BACK TO BACK.

TABULATIONS

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SHEET 259 OF 359

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PERMANENT PAVEMENT MARKINGS AND STRIPING

V

ROADWAY	2102	2582															
	PAVEMENT MARKING REMOVAL	4" SOLID LINE PAINT (4)	4" SOLID LINE MULTI-COMP (5)	4" DOUBLE SOLID LINE MULTI-COMP	4" SOLID LINE MULTI-COMP GR IN (WR)	6" SOLID LINE MULTI-COMP GR IN (WR)	8" SOLID LINE MULTI-COMP GR IN (WR)	4" BROKEN LINE MULTI-COMP GR IN (WR) (1)	4" DOTTED LINE MULTI-COMP GR IN (WR) (2) (6)	8" DOTTED LINE MULTI-COMP GR IN (WR) (3)	4" DOUBLE SOLID LINE MULTI-COMP GR IN (WR)	24" SOLID LINE PREFORM THERMO GR IN	24" SOLID LINE PREFORM THERMO GR IN ESR	PAVEMENT MESSAGE MULTI-COMP (7)	PAVEMENT MESSAGE PAINT (4)	PAVEMENT MESSAGE PREF THERMO GR IN	CROSSWALK PREF THERMO GR IN ESR
			WHITE	YELLOW		WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	YELLOW	WHITE				WHITE
	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	SQ FT	SQ FT	SQ FT	SQ FT
TH 41: S.P. 1008-87, S.P. 196-010-017																	
TH 41	200	2675	2675	200	8405	7360	115	250	70	40	1660	730	420	54	54	408	2350
S.P. 1008-87, S.P. 196-010-017 TOTALS	**200**	**2675**	**2675**	**200**	**8405**	**7360**	**115**	**250**	**70**	**40**	**1660**	**730**	**420**	**54**	**54**	**408**	**2350**
CSAH 61: S.P. 196-020-014																	
CSAH 61			100	50	5410			370				40		92		109	1820
S.P. 196-020-014 TOTALS			**100**	**50**	**5410**			**370**				**40**		**92**		**109**	**1820**
PROJECT TOTALS	**200**	**2675**	**2775**	**250**	**13815**	**7360**	**115**	**620**	**70**	**40**	**1660**	**770**	**420**	**146**	**54**	**517**	**4170**

NOTES:

(1) LENGTH DOES NOT INCLUDE GAPS. BROKEN LINE STRIPE IS 10' STRIPE WITH A 40' SKIP.

(2) LENGTH DOES NOT INCLUDE GAPS. DOTTED LINE STRIPE FOR INTERSECTION TURN LANE EXTENSIONS IS 2' STRIPE WITH A 6' SKIP.

(3) LENGTH DOES NOT INCLUDE GAPS. DOTTED LINE STRIPE IS 3' STRIPE WITH A 12' SKIP.

(4) TEMPORARY STRIPING USED AS NEEDED FOR TH 41 PARKING LOTS. SEE PARKING LOT PLANS.

(5) 2675 LF OF STRIPING USED FOR TH 41 PARKING LOTS. SEE PARKING LOT PLANS.

(6) LENGTH DOES NOT INCLUDE GAPS. DOTTED LINE STRIPE FOR TURN LANE IS 3' STRIPE WITH A 12' SKIP

(7) 54 SQ FT OF PAVEMENT MESSAGE USED FOR TH 41 PARKINGS LOTS. SEE PARKING LOT PLANS.

PAVEMENT MESSAGE AREA CALCULATION

ROADWAY	MULTI-COMPONENT					PREF THERMO GR IN						
	THRU-LEFT ARROW (8)		RIGHT TURN ARROW (9)		TOTAL SQ FT	LEFT TURN ARROW (9)		RIGHT TURN ARROW (9)		ONLY MESSAGE (10)		TOTAL SQ FT
	EACH	SQ FT	EACH	SQ FT		EACH	SQ FT	EACH	SQ FT	EACH	SQ FT	
TH 41: S.P. 1008-87, S.P. 196-010-017												
TH 41						13	201	12	186	1	21	408
S.P. 1008-87, S.P. 196-010-017 TOTALS						**13**	**201**	**12**	**186**	**1**	**21**	**408**
CSAH 61: S.P. 196-020-014												
CSAH 61	2	61	2	31	92	6	93	1	16			109
S.P. 196-020-014 TOTALS	**2**	**61**	**2**	**31**	**92**	**6**	**93**	**1**	**16**			**109**
PROJECT TOTALS	**2**	**61**	**2**	**31**	**92**	**19**	**294**	**13**	**202**	**1**	**21**	**517**

NOTES:

(8) THRU-LEFT TURN ARROW IS 30.09 SQ FT

(9) LEFT/RIGHT TURN ARROW IS 15.45 SQ FT

(10) ONLY MESSAGE IS 20.63 SQ FT

PAVEMENT STRIPING COLOR BREAKDOWN

ROADWAY	4" SOLID LINE MULTI-COMP GR IN (WR)		
	WHITE	YELLOW	TOTAL
TH 41: S.P. 1008-87, S.P. 196-010-017			
TH 41	2375	6030	8405
S.P. 1008-87, S.P. 196-010-017 TOTALS	**2375**	**6030**	**8405**
CSAH 61: S.P. 196-020-014			
CSAH 61	3005	2405	5410
S.P. 196-020-014 TOTALS	**3005**	**2405**	**5410**
PROJECT TOTALS	**5380**	**8435**	**13815**

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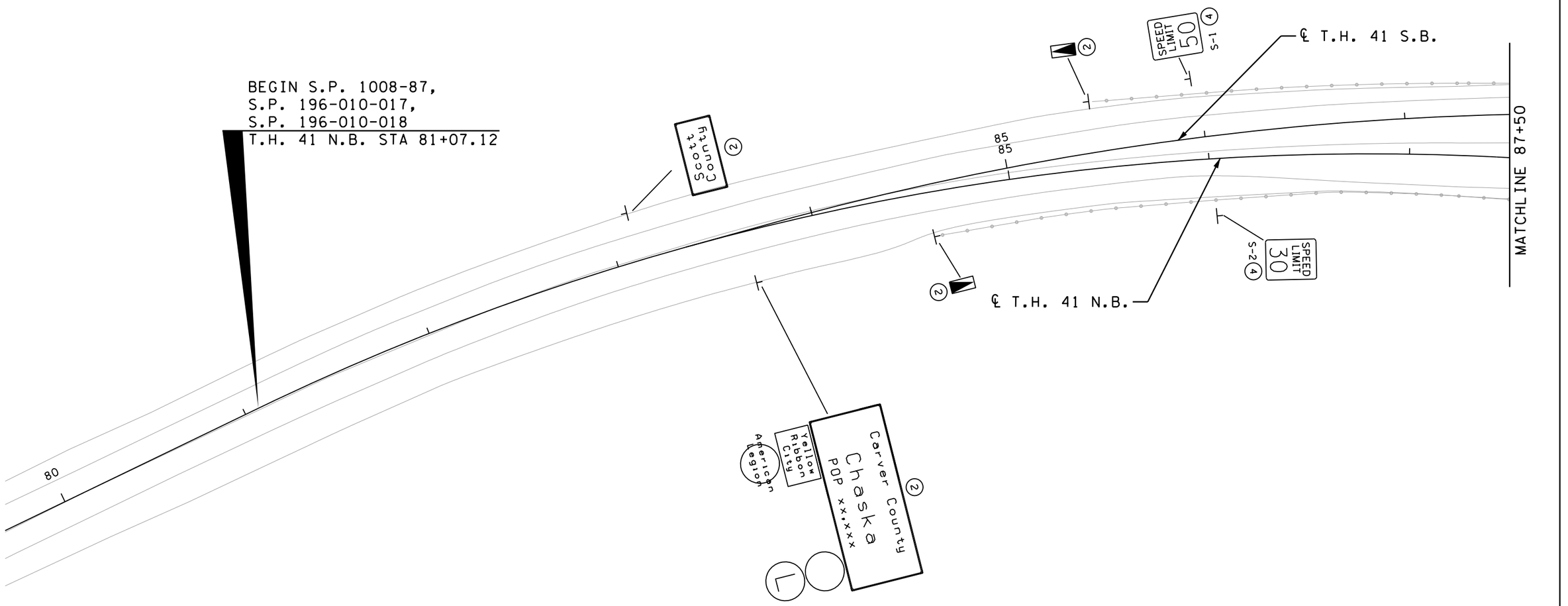
SIGNING & STRIPING PLAN

SHEET 260 OF 359

NOTES:

(2) INPLACE

(4) REMOVE



EXISTING SIGNING

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014	SHEET 261 OF 359
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS	
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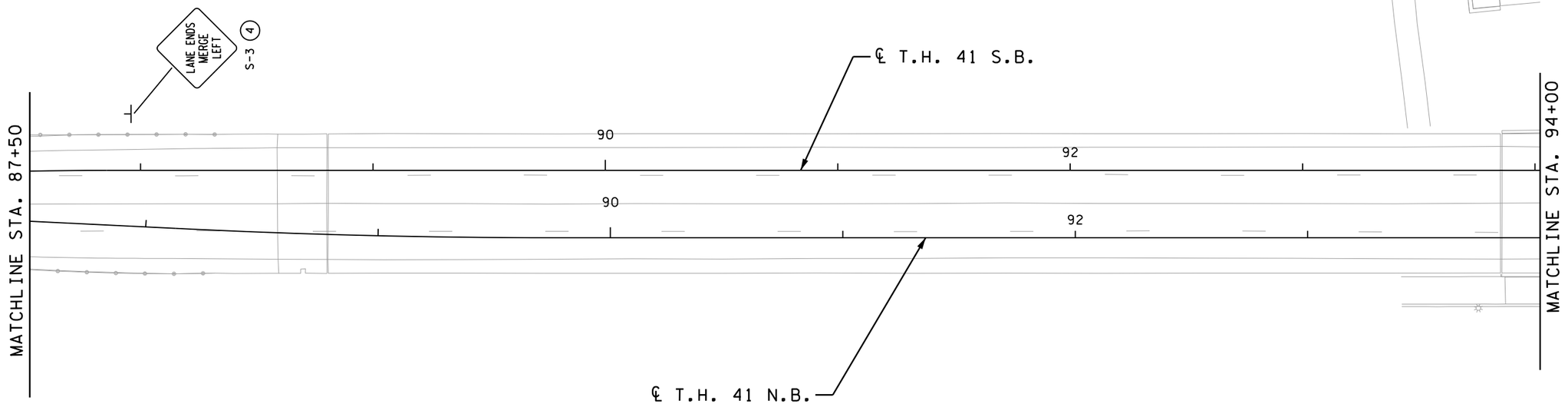
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(4) REMOVE



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

EXISTING SIGNING

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 262 OF 359

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NOTES:

(2) INPLACE
(3) SALVAGE
(4) REMOVE
(8) SALVAGE SIGN PANEL

W 1ST ST

E 1ST ST

MATCHLINE STA. 94+00

MATCHLINE STA. 100+90

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

95

100

100

S-10 (4) (8)
NO PARKING 2:00 AM TO 6:00 AM
STOP
ONE WAY
First St W

RIGHT LANE ENDS
600 FEET (4) S-6

SPEED LIMIT 30 (4) S-7

DO NOT ENTER (4) S-9

S-14 (4)

S-15 (4)
DO NOT ENTER

S-8 (4)

ONE WAY
ONE WAY (4) S-11

S-4 (4)

S-5 (4)
½ NEXT 4 MILES

S-5.1 (3) (4)
VEHICLE SPEED FEEDBACK SIGN
SPEED LIMIT 30

SALVAGE VEHICLE SPEED FEEDBACK SIGN TO CITY

S-13 (4)

ONE WAY
First St E
STOP
S-12 (4) (8)

S-16 (4)
SEMI TRUCKS NO TURNS NEXT 4 BLKS

0 25 50
SCALE FEET

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Michael S. Larson

MICHAEL S. LARSON
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DRAWN	MPN
CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 263 OF 359

NOTES:

(2) INPLACE

(4) REMOVE

(8) SALVAGE SIGN PANEL

W 2ND ST

W 3RD ST

E 2ND ST

E 3RD ST

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 100+90

MATCHLINE STA. 108+00

101

105

SPEED LIMIT 30 S-20 (4)

S-21 (4)

S-22 (4)

DO NOT ENTER S-23 (4)

NO PARKING OR STOPPING S-24 (4)

NO PARKING OR STOPPING S-25 (4)

STOP S-27 (4) (8) Third St W

S-30 (4)

DO NOT ENTER S-31 (4)

NO PARKING 2:00 AM TO 6:00 AM S-32 (4)

SPEED LIMIT 30 S-33 (4)

DO NOT ENTER S-17 (4)

S-19 (4)

S-18 (4)

DO NOT ENTER S-26 (4)

ONEWAY S-28 (4)

STOP S-29 (4) (8) Third St E

0 25 50

SCALE FEET

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Michael S. Larson

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DRAWN	MPN
CHECKED	MSL

EXISTING SIGNING

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S.P. 196-010-018, S.P. 196-020-014

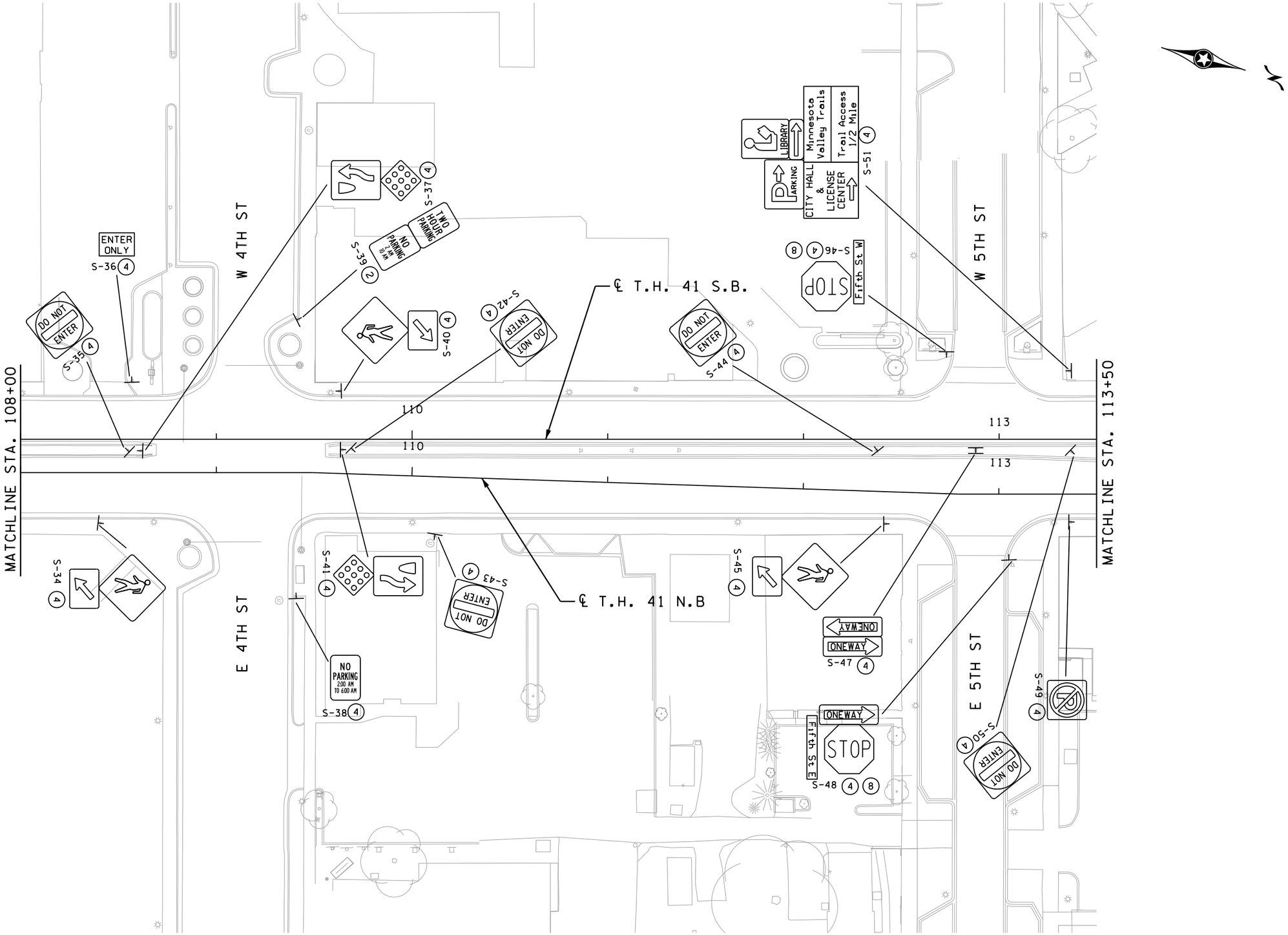
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 264 OF 359

NOTES:

(2) INPLACE
(4) REMOVE
(8) SALVAGE SIGN PANEL



0 25 50
SCALE FEET

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

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DRAWN	MPN
CHECKED	MSL

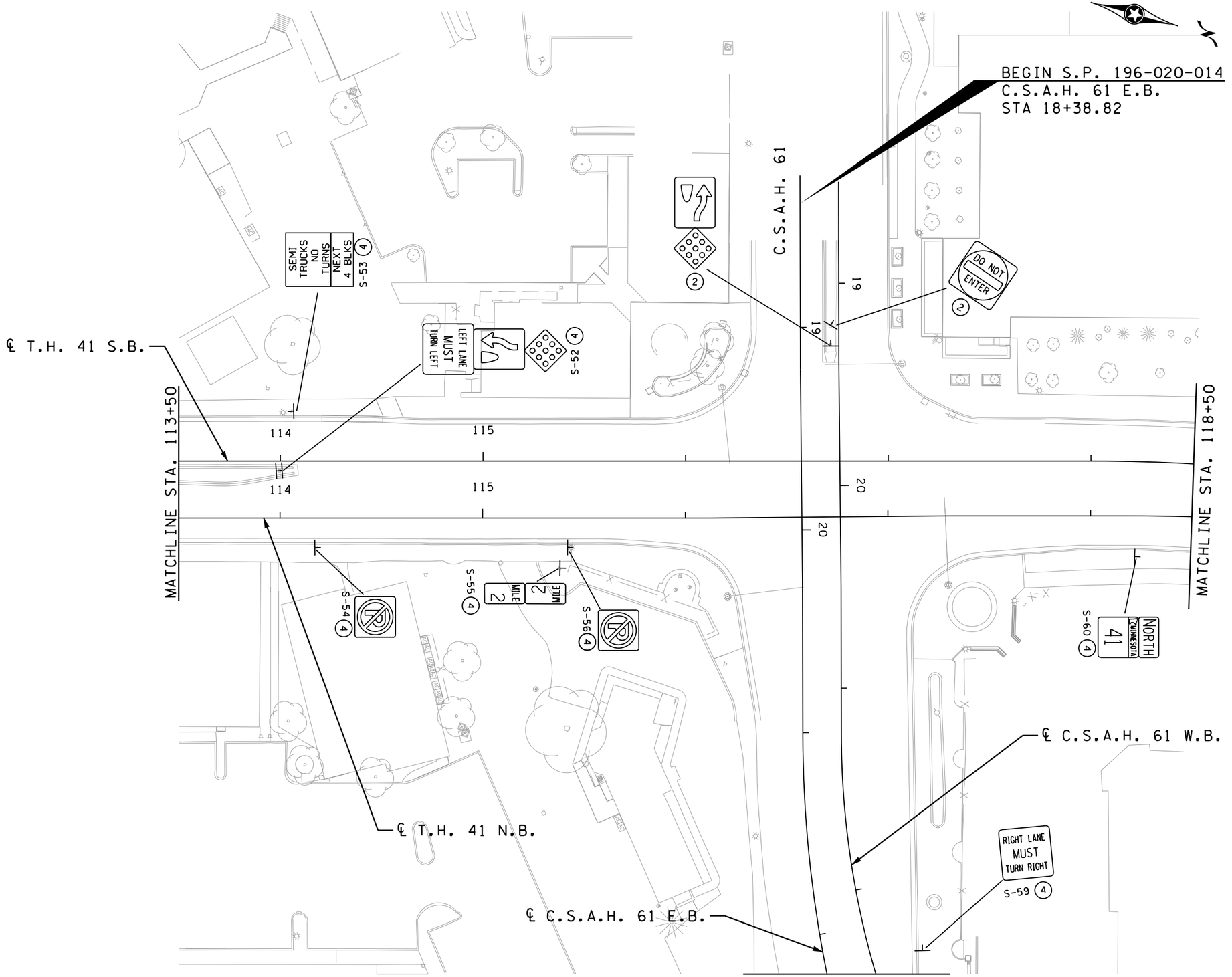
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 265 OF 359

NOTES:

(2) INPLACE

(4) REMOVE



EXISTING SIGNING

0 25 50
SCALE FEET

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Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 266 OF 359

NOTES:

(2) INPLACE
(3) SALVAGE
(4) REMOVE

℄ T.H. 41 S.B.

SALVAGE VEHICLE SPEED FEEDBACK SIGN TO CITY

S-63 (4)

S-65 (4)

(2)

SPEED LIMIT 30

VEHICLE SPEED FEEDBACK SIGN

S-65.2 (3) (4)

125

125

120

120

MATCHLINE STA. 118+50

CHASKA ROTARY

S-61 (3)

STOP

S-62 (4)

℄ T.H. 41 N.B.

S-64 (4)

S-65.1 (4)

STOP (2)

SPEED LIMIT 40 (2)

END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

WALNUT ST

0 25 50
SCALE FEET

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

EXISTING SIGNING
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 267 OF 359

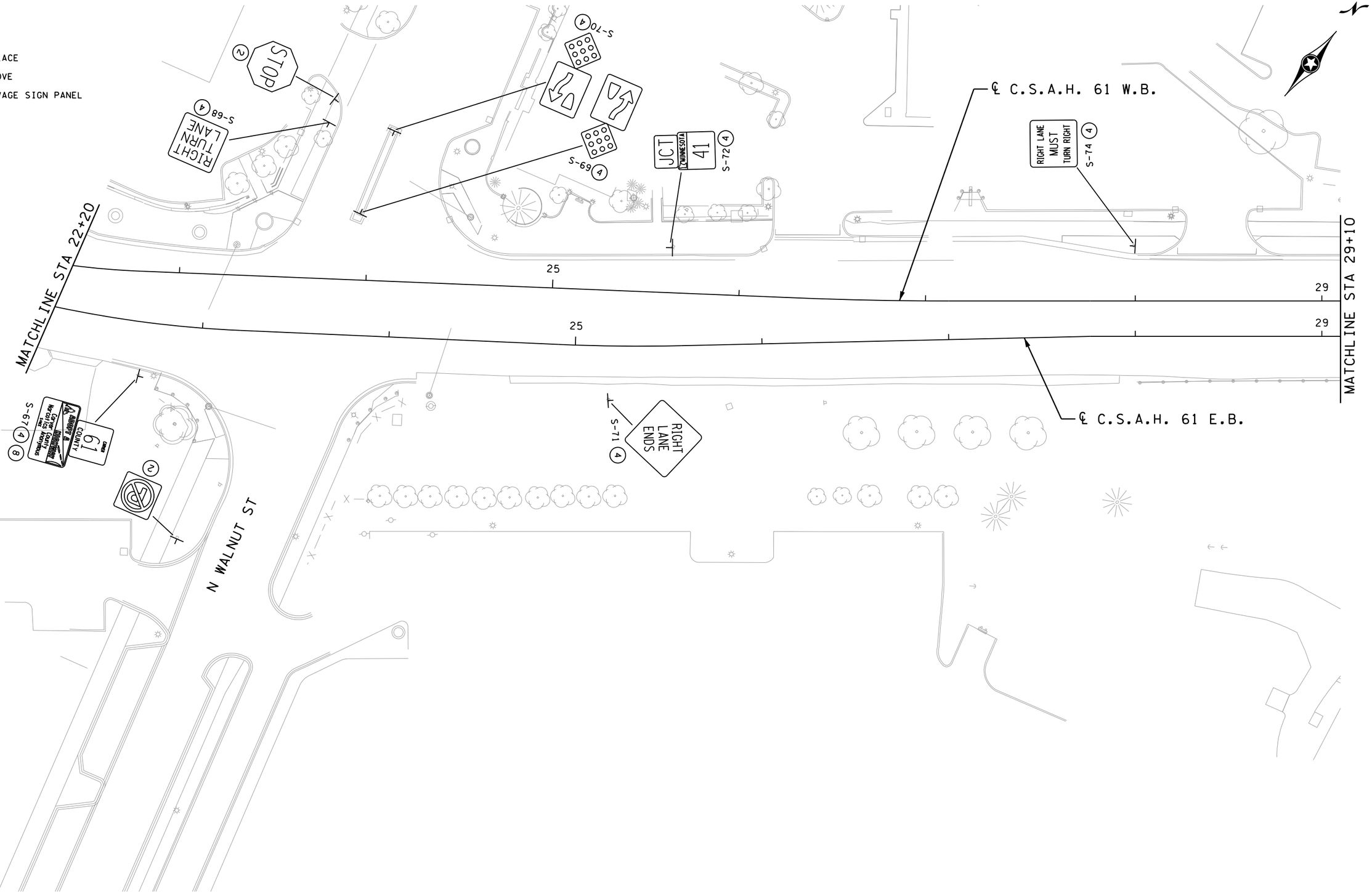
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NOTES:

(2) INPLACE

(4) REMOVE

(8) SALVAGE SIGN PANEL



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SCALE FEET

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Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

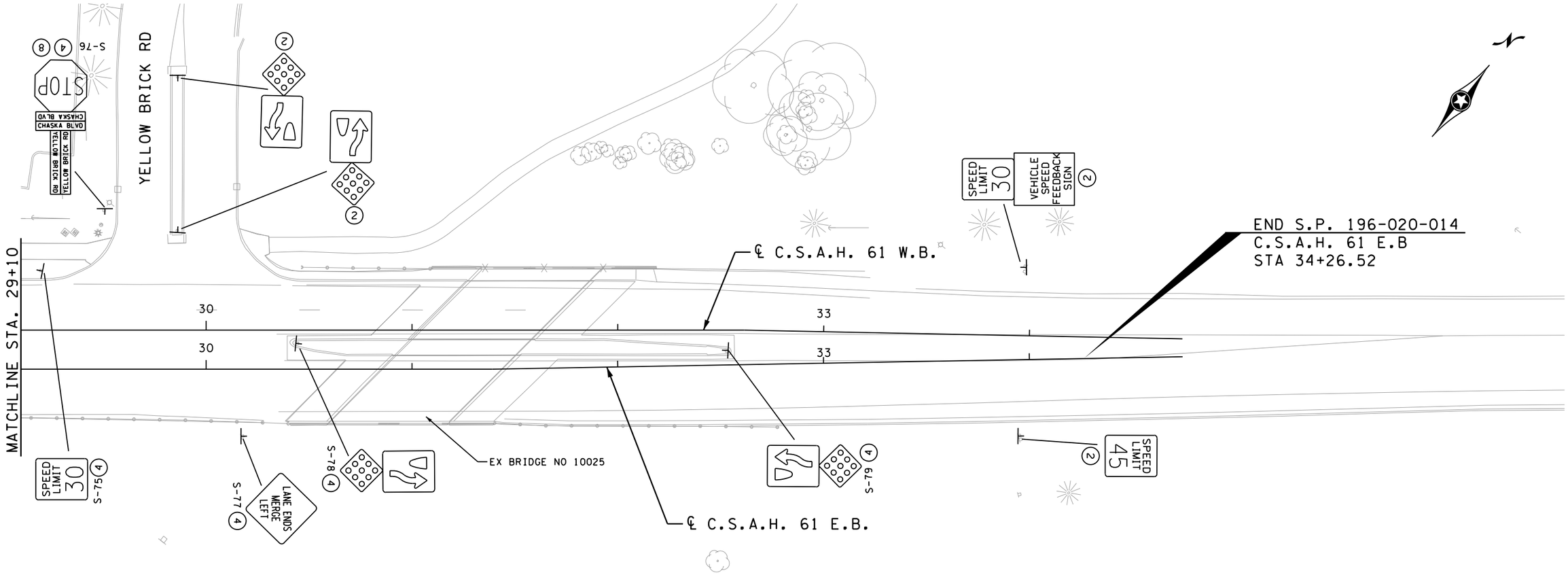
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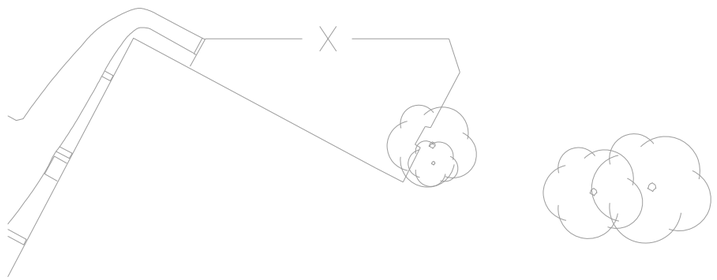
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 268 OF 359





NOTES:

(2) INPLACE

(4) REMOVE

(8) SALVAGE SIGN PANEL

0 25 50
SCALE FEET

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

EXISTING SIGNING

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

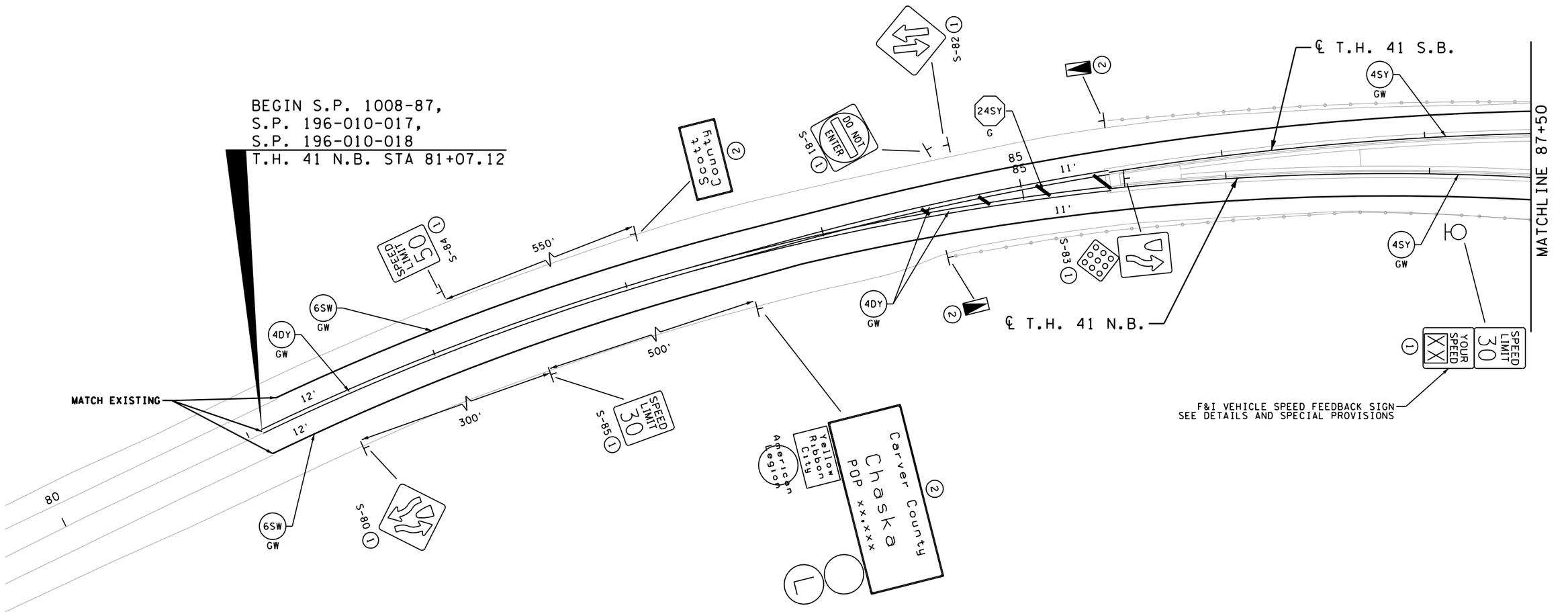
SIGNING & STRIPING PLAN

SHEET 269 OF 359

NOTES:

(1) F & I

(2) INPLACE



PROPOSED SIGNING & STRIPING

BOLTON & MENK	S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014	SHEET 270 OF 359
12224 NICOLLET AVENUE BURNSVILLE, MINNESOTA 55337 Phone: (952) 890-0509 Email: Burnsville@bolton-menk.com www.bolton-menk.com	T.H. 41 & C.S.A.H. 61 IMPROVEMENTS	
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. Michael S. Larson MICHAEL S. LARSON LIC. NO. 58850 DATE 03-02-2022	SIGNING & STRIPING PLAN	
DESIGNED MPN DRAWN MPN CHECKED MSL		

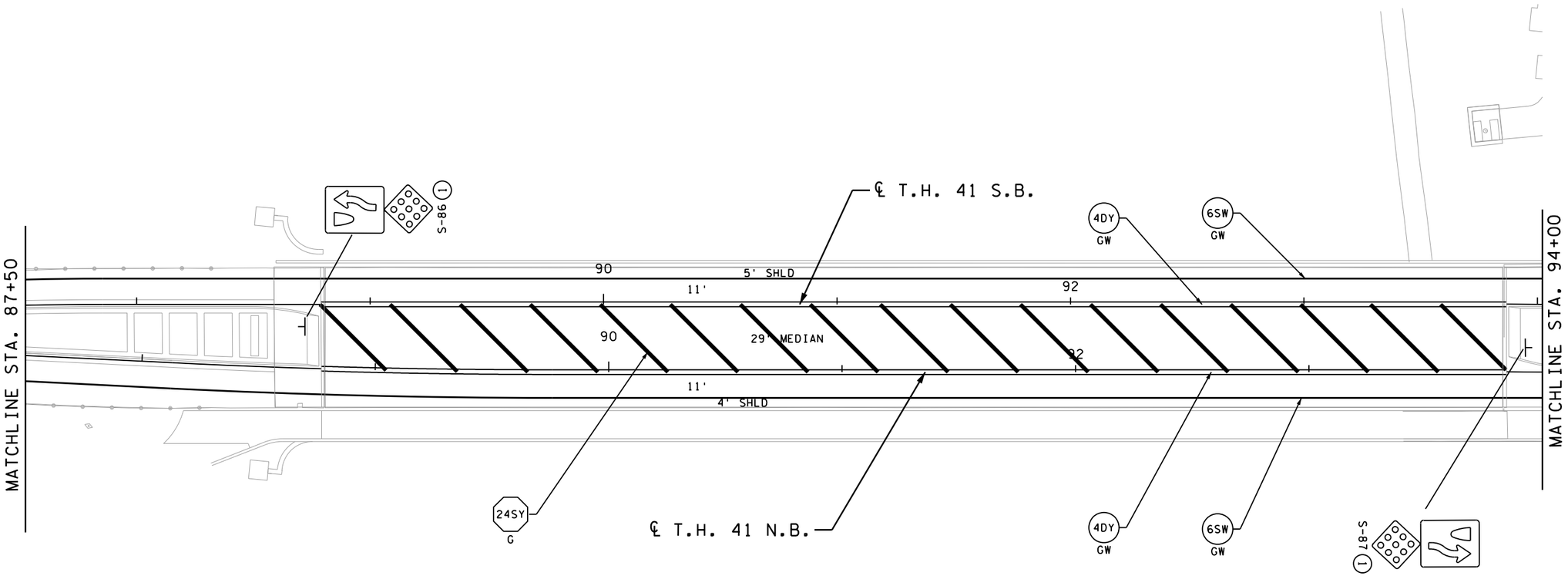
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NOTES:

1. F & I
2. INPLACE



PROPOSED SIGNING & STRIPING

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BURNSVILLE, MINNESOTA 55337
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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 271 OF 359

SCALE 0 25 50 FEET

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NOTES:

1. F & I
2. INPLACE
6. INSTALL

W 1ST ST

E 1ST ST

MATCHLINE STA. 94+00

MATCHLINE STA. 100+90

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

24SW GE

STOP ONE WAY S-96-S (1)

9

FIRST ST E S-66-S (1)

DO NOT ENTER S-95 (1)

SPEED LIMIT 30 S-91 (1)

S-101 (1)

RIGHT LANE MUST TURN RIGHT S-102 (1)

4SW GW

6SW GW

4SY GW

11'

95

1:5

100

1:7

RIGHT LANE MUST TURN RIGHT S-92 (1)

S-93 (1)

ONE WAY S-97 (1)

6

ONE WAY

STOP S-98 (1)

24SW GE

LEFT LANE MUST TURN LEFT S-103 (1)

RIGHT LANE MUST TURN RIGHT S-104 (1)

S-88 (1)

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SCALE FEET

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DRAWN	MPN
CHECKED	MSL

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 272 OF 359

NOTES:
1. F & I
2. INPLACE
6. INSTALL

W 2ND ST
E 2ND ST
W 3RD ST
E 3RD ST
℄ T.H. 41 S.B.
℄ T.H. 41 N.B.
MATCHLINE STA. 100+90
MATCHLINE STA. 108+00
S-104.1 (1) DO NOT ENTER
S-105 (1)
S-106 (1)
S-106.1 (1) DO NOT ENTER
S-107 (1) RIGHT LANE MUST TURN RIGHT
S-108 (1) LEFT LANE MUST TURN LEFT
S-109 (1) RIGHT LANE MUST TURN RIGHT
S-110 (1)
S-111 (1) DO NOT ENTER
S-112 (1) STOP ONEWAY
S-113 (1) ONEWAY ONEWAY
S-114 (1) ONEWAY STOP
S-115 (1) DO NOT ENTER
S-116 (1) LEFT LANE MUST TURN LEFT
S-117 (1)
S-118 (1) RIGHT LANE MUST TURN RIGHT
S-120 (1) ONEWAY
S-121 (1) SPEED LIMIT 30
S-122 (1) SOUTH MINNESOTA 41
9 W THIRD ST
6 E THIRD ST
24SW GE
6SW GW
4SW GW
4SY GW
4DY
11' 11' 11' 11' 11' 11' 11' 11' 11' 11' 11' 11'
1:5
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SCALE 0 25 50 FEET

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

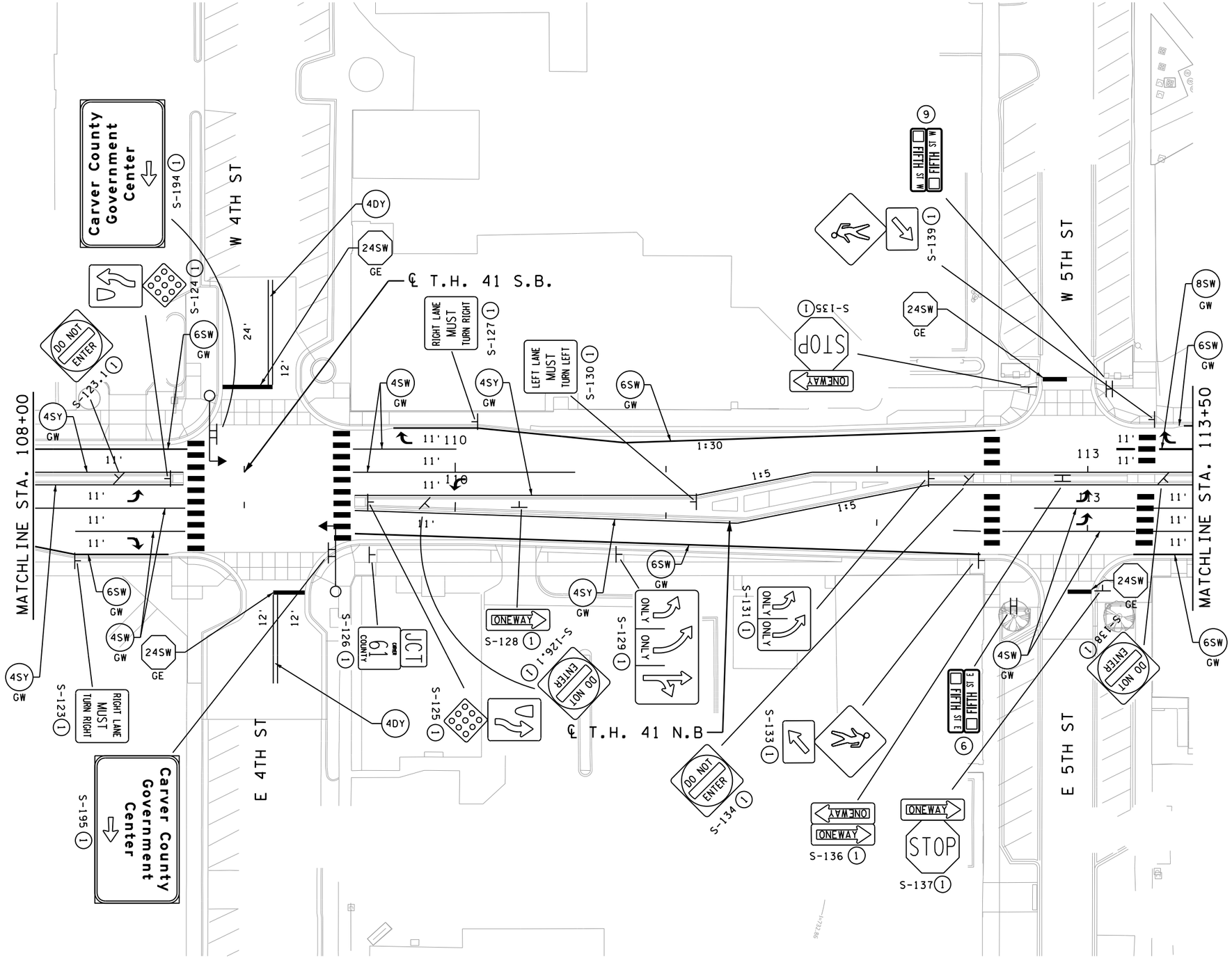
DESIGNED MPN
DRAWN MPN
CHECKED MSL

PROPOSED SIGNING & STRIPING
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 273 OF 359

NOTES:

1. F & I
2. INPLACE
8. INSTALL



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Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

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DRAWN	MPN
CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 274 OF 359

NOTES:

1. F & I
2. INPLACE

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 113+50

MATCHLINE STA. 118+50

MATCHLINE STA 22+20

MATCH EXISTING

MATCH EXISTING

C.S.A.H. 61

BEGIN S.P. 196-020-014
C.S.A.H. 61 E.B.
STA 18+38.82

℄ C.S.A.H. 61 W.B.

℄ C.S.A.H. 61 E.B.

2' STRIPE, 6' GAP

RIGHT LANE MUST TURN RIGHT S-141 (1)

SOUTH MINNESOTA 41 S-142 (1)

WEST MILE 2 S-145.1 (1)

DO NOT ENTER S-145.2 (1)

S-146 (1)

ONLY S-143 (1)

ONLY ONLY S-144 (1)

S-145 (1)

EAST MILE 2

S-147 (1)

DO NOT ENTER S-147.1 (1)

DO NOT ENTER S-149.1 (1)

S-149 (1)

S-150 (1)

S-151 (1)

NORTH MINNESOTA 41

RIGHT LANE MUST TURN RIGHT S-148 (1)

4BW GW

4SY GW

4SW GW

6SW GW

8SW GW

8TW GW

4TW GW

COUNTY 61 (2)

11' 11' 19 61

20

114 115

PROPOSED SIGNING & STRIPING

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 275 OF 359

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
(952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

REV.	BY	DATE

DESIGNED MPN
DRAWN MPN
CHECKED MSL

SCALE 0 25 50 FEET

N:\BURNSVILLE\OKA\OT4123211\CAD\MS\plans\SignStrip\cd123211_sgn005.dgn

pdf-B and W.pltcfg 1:28:07 PM bmi.tbl

NOTES:

1. F & I
2. INPLACE
6. INSTALL

END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

℄ T.H. 41 S.B.

REMOVE CONFLICTING MARKINGS
(200 LF)

MATCHLINE STA. 118+50

RIGHT LANE MUST TURN RIGHT S-160 (1)

LEFT LANE MUST TURN LEFT S-155 (1)

61 COUNTY S-162 (1)

S-164 (1)

STOP HERE ON RED S-166 (1)

SPEED LIMIT 30 S-167 (1)

ONEWAY S-154 (1)

ONEWAY S-158 (1)

STOP S-156 (1)

STOP S-159 (1)

STOP HERE ON RED S-161 (1)

DO NOT ENTER S-153 (1)

DO NOT ENTER S-157 (1)

DO NOT ENTER S-163 (1)

CHASKA ROTARY ABRUPT EDGE S-61 (6)

TURNING VEHICLES STOP FOR S-165 (1)

SPEED LIMIT 40 (2)

STOP (2)

6SW GW
4SW GW
4TW GW
4BW GW
4SY GW
24SW GE

11' 11' 11' 11'
120 120
1:10 1:10
200'
125 125

WALNUT ST

MATCH EXISTING

℄ T.H. 41 N.B.

SCALE 0 25 50 FEET

M:\CHKA\OT4123211\CAD\MS\plans\SignStrip\cd123211_sgn006.dgn

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

PROPOSED SIGNING & STRIPING
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 276 OF 359

NOTES:

1. F & I
2. INPLACE
6. INSTALL

MATCHLINE STA 22+20

MATCHLINE STA 29+10

℄ C.S.A.H. 61 W.B.

℄ C.S.A.H. 61 E.B.

N WALNUT ST

MULTI-COMPONENT

MULTI-COMPONENT

MATCH EXISTING

S-170 (1) 41 MINNESOTA

S-170.1 (1) DO NOT ENTER

S-172 (1) RIGHT LANE MUST TURN RIGHT

S-173 (1)

S-174 (1)

S-175 (1)

S-176 (1)

S-177 (1) DO NOT ENTER

S-178 (1) RIGHT LANE ENDS

S-179 (1) ONE WAY

S-180 (1) DO NOT ENTER

S-181 (1) LEFT LANE MUST TURN LEFT

S-182 (1) ONLY ONLY

S-183 (1) LEFT LANE MUST TURN LEFT

S-184 (1) ONE WAY

S-185 (1) DO NOT ENTER

S-186 (1) JCT 41 MINNESOTA

S-67 (6) ADVISORY & REGULATORY SIGNS

S-168 (1) LEFT LANE MUST TURN LEFT

S-169 (1) 61 COUNTY

2 STOP

24SY G

4DY

4SW GW

4SY GW

4BW GW

11' 14' 12' 15' 25 1:10 1:15 29

pdf-B and W.pltcfg 1:28:09 PM bmi.tbl

0 25 50 SCALE FEET

H:\CHKA\OT4123211\CAD\MS\plans\SignStrip\cd123211_sgn007.dgn

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

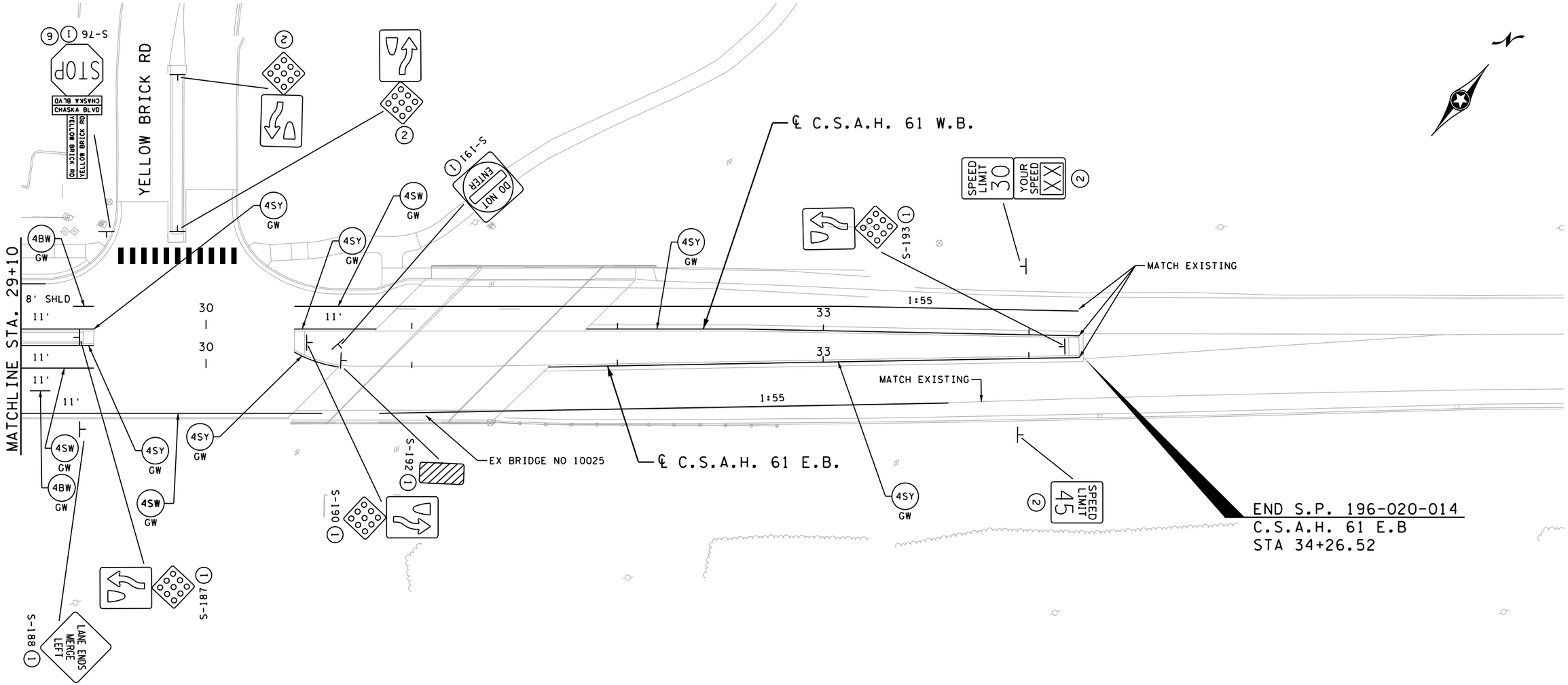
PROPOSED SIGNING & STRIPING

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNING & STRIPING PLAN

SHEET 277 OF 359



NOTES:

1. F & I
2. INPLACE
6. INSTALL

PROPOSED SIGNING & STRIPING

SCALE 0 25 50 FEET

J:\CHKA\0T4123211\CAD\MS\plans\SignStrip\cd123211_sgn008.dgn

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

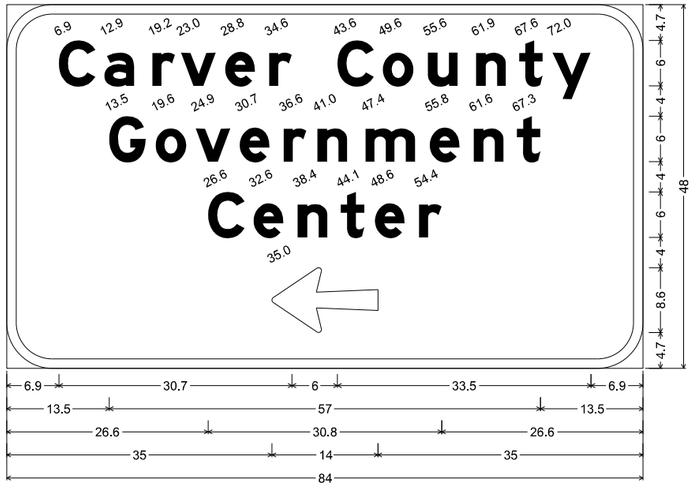
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CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 278 OF 359

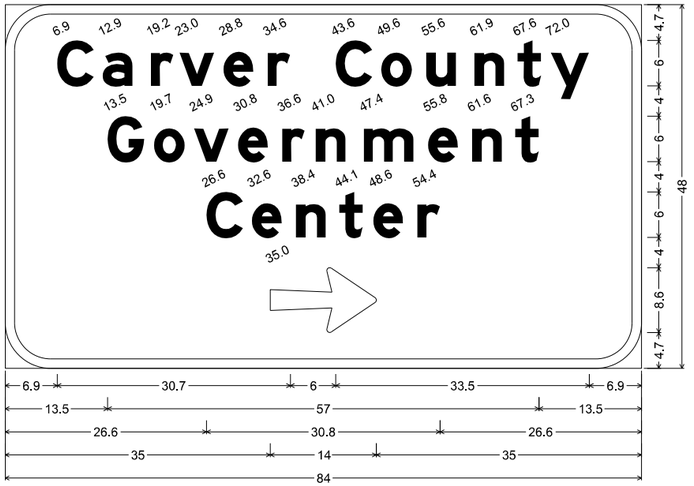
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omb 3/18/2022

P1



6.0" Radius, 1.3" Border, White on Green;
"Carver County", E Mod 2K; "Government", E Mod 2K; "Center", E Mod 2K;
Arrow 13 - 14.0" 180°;

P2



6.0" Radius, 1.3" Border, White on Green;
"Carver County", E Mod 2K; "Government", E Mod 2K; "Center", E Mod 2K; Arrow 13 - 14.0" 0°;

NOTES:
1. SEE MNDOT STANDARD SIGNS AND MARKINGS MANUAL FOR ARROW, FRACTION, AND ROUTE MARKER DETAILS.
2. ALL DIMENSIONS ARE IN INCHES.

NOT TO SCALE

N:\CHKA\OT4123211\CAD\MS\plans\SignStrip\cd123211_sgn_sp001.dgn

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

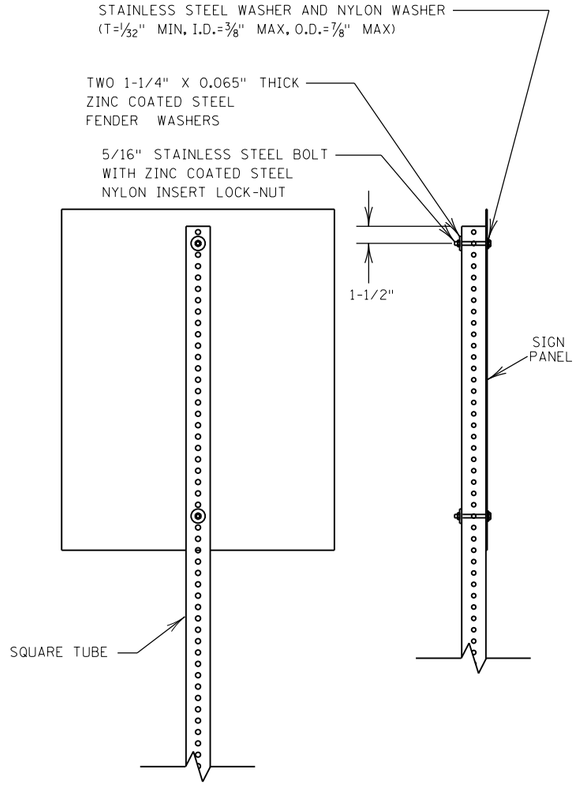
DESIGNED	MPN
DRAWN	MPN
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

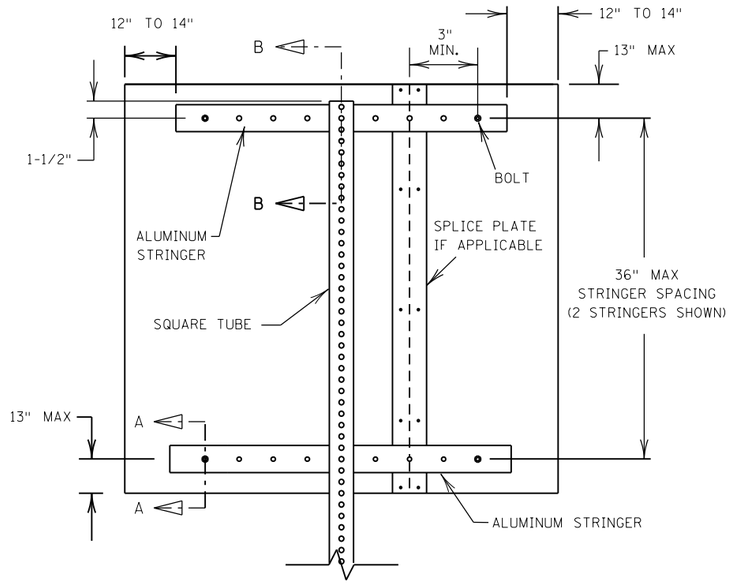
PANEL LAYOUTS

SHEET 279 OF 359

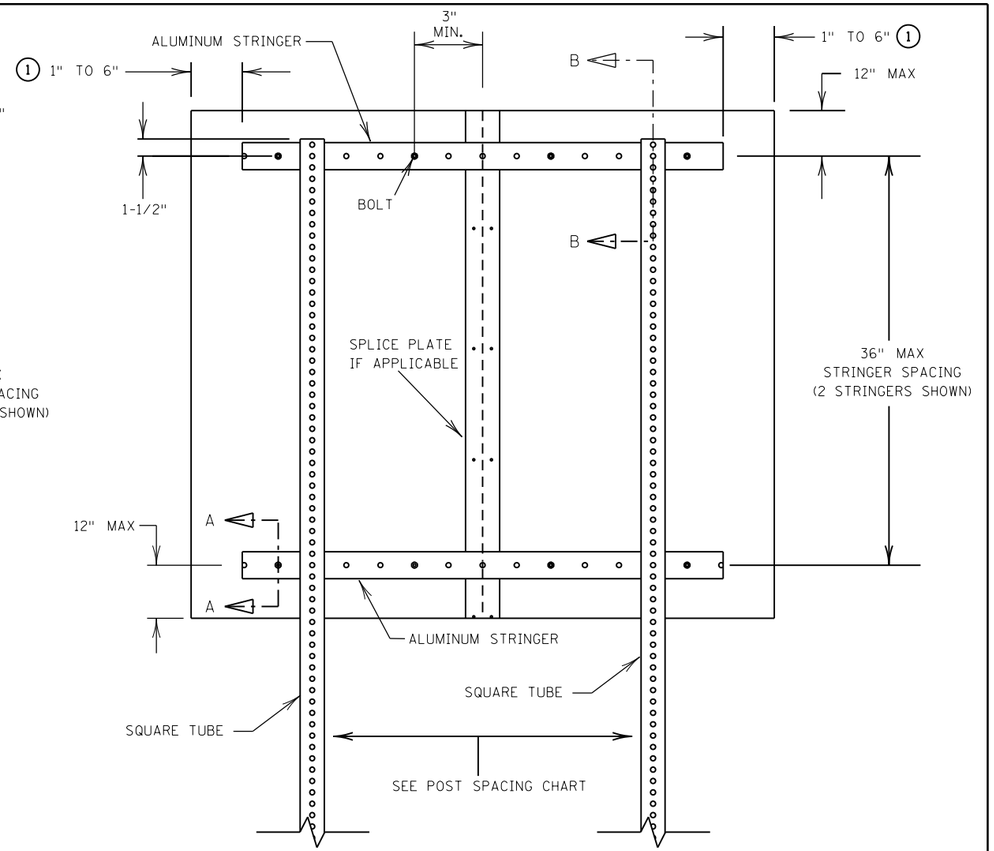
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omDU 3/18/2022



FOR SIGN PANELS UP TO 30" WIDE

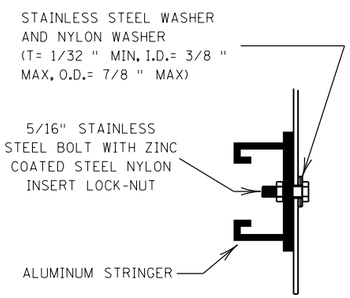


FOR SIGN PANELS 36" WIDE
OR GREATER ON ONE POST

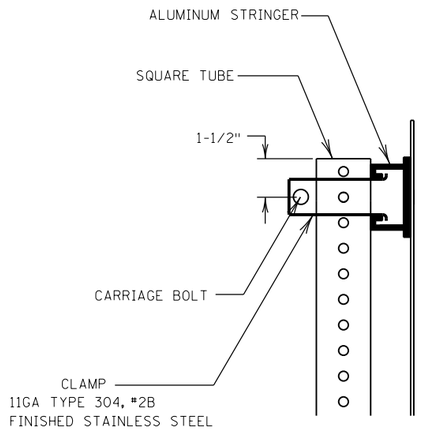


FOR SIGN PANELS ON TWO OR MORE POSTS

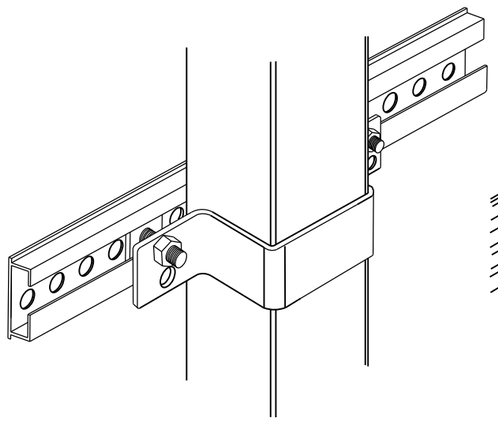
(1) IF POST SPACING REQUIRES PLACEMENT OF A POST WITHIN THIS AREA, EXTEND STRINGERS AS NEEDED TO ACCOMMODATE THE STRINGER TO POST CLAMP.



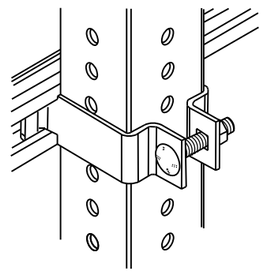
VIEW A-A



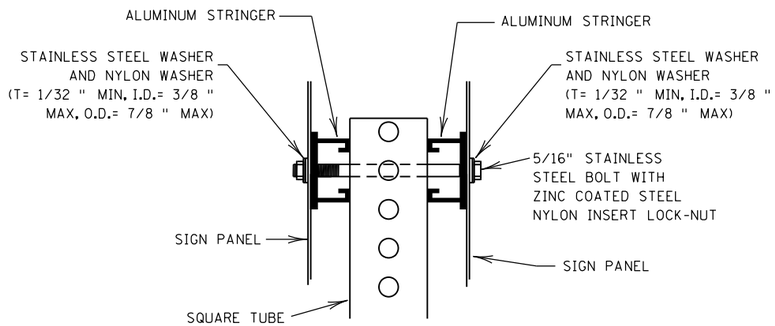
VIEW B-B



CLAMP DETAIL
4" SQUARE TUBE



CLAMP DETAIL
2" AND 2 ½" SQUARE TUBE



BACK TO BACK
SIGN MOUNTING WITH STRINGERS

NOTES:
1. BOLT SIGN PANELS TO STRINGERS OR RISER POSTS AT NO GREATER THAN 24 INCH SPACING OR ACCORDING TO THE MNDOT STANDARD SIGNS AND MARKINGS MANUAL FOR MOUNTING HOLES (PUNCH CODES) INFORMATION.
2. STRINGERS SHALL BE CENTERED ON SIGN PANEL.

1 OF 3

SQUARE TUBE SIGN MOUNTING DETAILS

bmi.tbl
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1:28:12 PM
7/18/2022
tombu

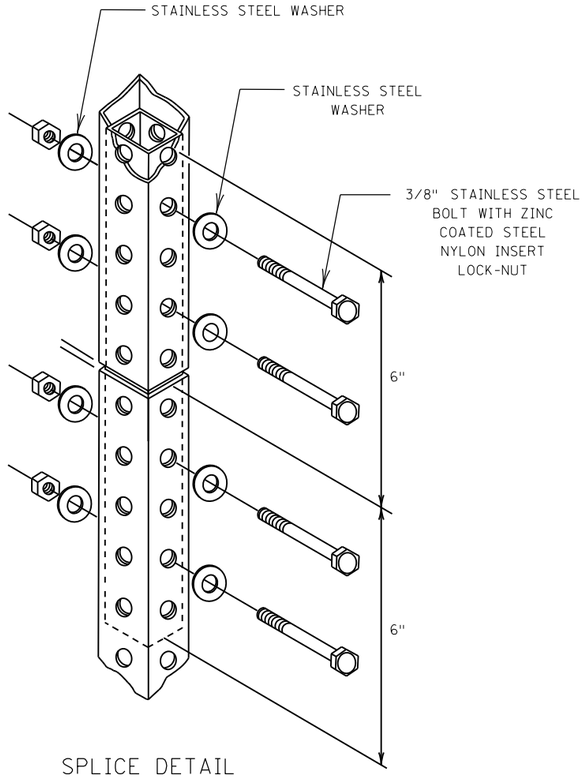
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REV.	BY	DATE

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 280 OF 359



SPLICE DETAIL

NO MORE THAN ONE SPLICE PER POST.

WHEN USED MUST BE PLACED AT LEAST 8 FEET ABOVE GROUND. THE PREFERRED PLACEMENT LOCATION IS BEHIND THE SIGN PANEL.

INTERIOR POST STUD SHALL BE ONE SIZE SMALLER FOR A TIGHT FIT. IF RISER POST IS 2-1/2", INTERIOR POST IS 2-3/16". IF RISER POST IS 2", INTERIOR POST IS 1-3/4".

PANEL WIDTH	SQUARE TUBE POST SPACING						
	2 POSTS	3 POSTS	4 POSTS	5 POSTS	6 POSTS	7 POSTS	8 POSTS
(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)
42	15						
48	21						
54	30						
60	36						
66	36						
72	42						
78	42						
84	48						
90	48	42					
96	48	42					
102	54	42					
108	54	42					
114	60	42					
120	60	48					
126	66	48					
132	66	48	42				
138	72	48	42				
144	72	48	42				
150	78	54	42				
156	78	54	42				
162	84	54	42				
168	84	60	48				
174	90	60	48	42			
180	90	60	48	42			
186	96	66	48	42			
192	96	66	48	42			
198	102	66	54	42			
204	102	72	54	42			
210	108	72	54	42			
216	108	72	54	48	42		
222	114	78	60	48	42		
228	114	78	60	48	42		
234	120	78	60	48	42		
240	120	84	60	48	42		
246		84	66	54	42		
252		84	66	54	42		
258		90	66	54	42	42	
264		90	66	54	48	42	
270		90	72	54	48	42	
276		96	72	60	48	42	
282		96	72	60	48	42	
288		96	72	60	48	42	
294		102	78	60	54	42	
300		102	78	60	54	42	42
306		102	78	66	54	42	42
312		108	78	66	54	48	42
318		108	84	66	54	48	42
324		108	84	66	54	48	42
330		114	84	66	60	48	42
336		114	84	72	60	48	42

DISTANCES ARE CENTER-TO-CENTER OF POSTS

2 OF 3

SQUARE TUBE SIGN MOUNTING DETAILS

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 281 OF 359

bmi.tbl
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3/18/2022
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J:\CHKA\OT4123211\CAD\MS\plans\SignStrip\MnDOT Details\Sign\cd123211_sgn_dt001A.dgn
7.B. Adopt Resolution 2022-48, Approve...
Page 282 of...
Packet Page 310 of...

NUMBER OF ALUMINUM STRINGERS FOR 2-1/2 INCH OR SMALLER POSTS

PANEL HEIGHT (INCHES)

	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324	330	336
120	0	0	0	0	4	4	4	4	4					4																																														
114	0	0	0	0	4	4	4	4	4	4				4	4																																													
108	0	0	0	0	4	4	4	4	4	4	4			4	4	4				4	4																																								
102	0	0	0	0	4	4	4	4	4	4	4			4	4	4	4	4		4	4	4	4				4	4	4																																
96	0	0	0	0	3	3	3	3	3	3	3	3		3	3	3	3	3	3		3	3	3	3	3	3		3	3	3	3	3	3		3	3	3	3	3																			
90	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3																		
84	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3						
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18	0	0	0	0	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	0	0	0	0	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

1 POST | 2 POST | 3 POST | 4 POST | 5 POST | 6 POST

PANEL WIDTH (INCHES)

NUMBER OF STRINGERS FOR 4 INCH POSTS

PANEL HEIGHT (INCHES)

	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324	330	336
144				5	5	5	5	5	6	6	5	5	5	5	5	5	6	6	6	6	7	5	5	5	5	6	6	6	6	6	7	5	5	6	6	6	6	6	6	7	7																		
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1 POST | 2 POST | 3 POST | 4 POST

PANEL WIDTH (INCHES)

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3 OF 3

SQUARE TUBE
SIGN MOUNTING DETAILS

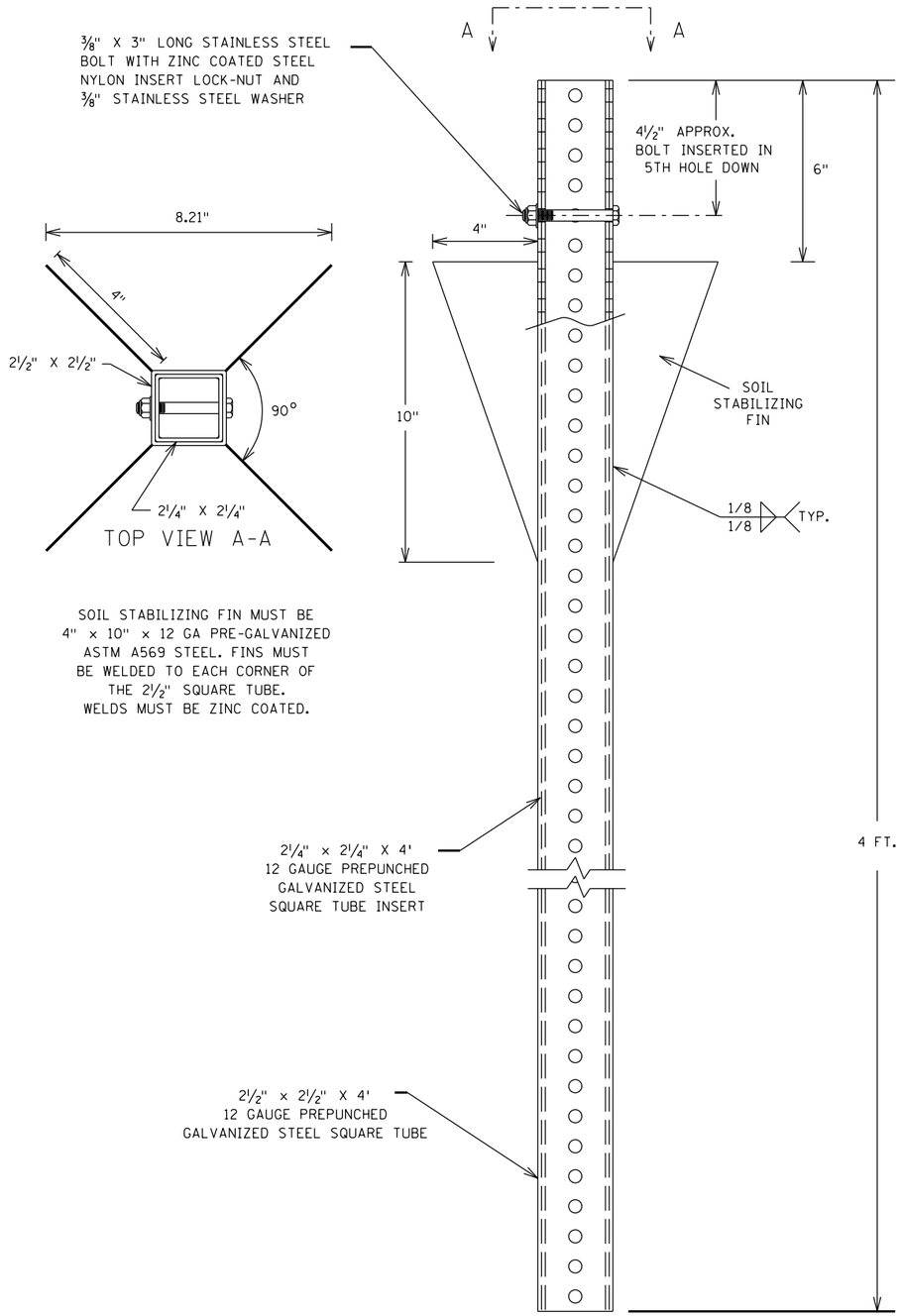
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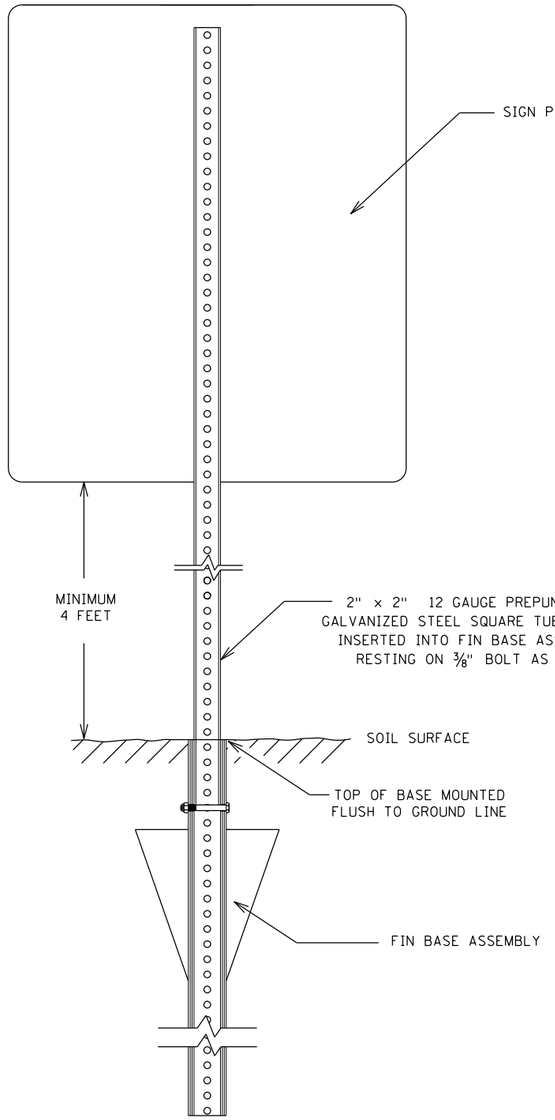
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SIGNING & STRIPING PLAN

SHEET 282 OF 359



SOIL STABILIZING FIN MUST BE 4" x 10" x 12 GA PRE-GALVANIZED ASTM A569 STEEL. FINS MUST BE WELDED TO EACH CORNER OF THE 2 1/2" SQUARE TUBE. WELDS MUST BE ZINC COATED.

FIN BASE ASSEMBLY



FIN BASE IN SOIL

NOTES:

1. THE CRASH RESPONSE TYPE FOR THIS STRUCTURE IS BENDABLE.
2. TO MEET CRASHWORTHY REQUIREMENTS THE DISTANCE BETWEEN THE BOTTOM OF THE SIGN PANEL AND THE GROUND SURFACE BELOW ANY PORTION OF THE SIGN PANEL MUST BE A MINIMUM OF 4 FEET. SEE TABULATIONS FOR MOUNTING HEIGHT.
3. FOR SIGN PANEL MOUNTING DETAILS SEE SQUARE TUBE SIGN MOUNTING DETAILS.
4. SQUARE TUBE SIGN POSTS PER MnDOT SPEC. 3402.

REV 4/20/21

FIN BASE

FOR 2 INCH SQUARE TUBE RISER POST IN SOIL

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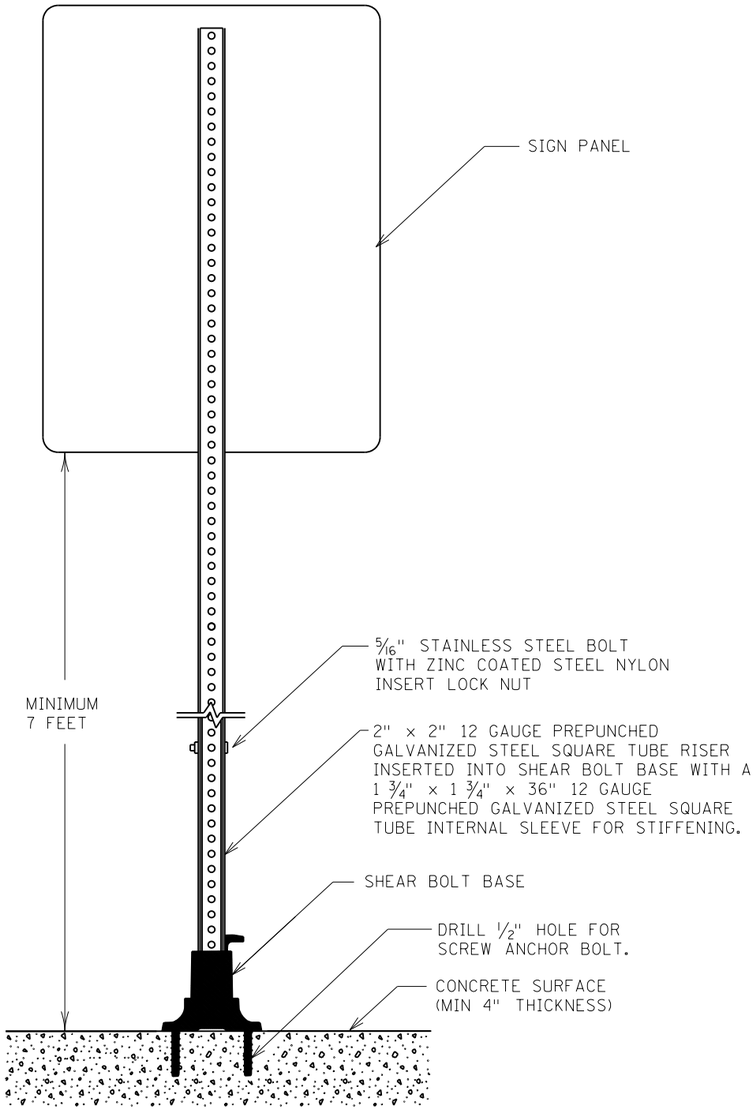
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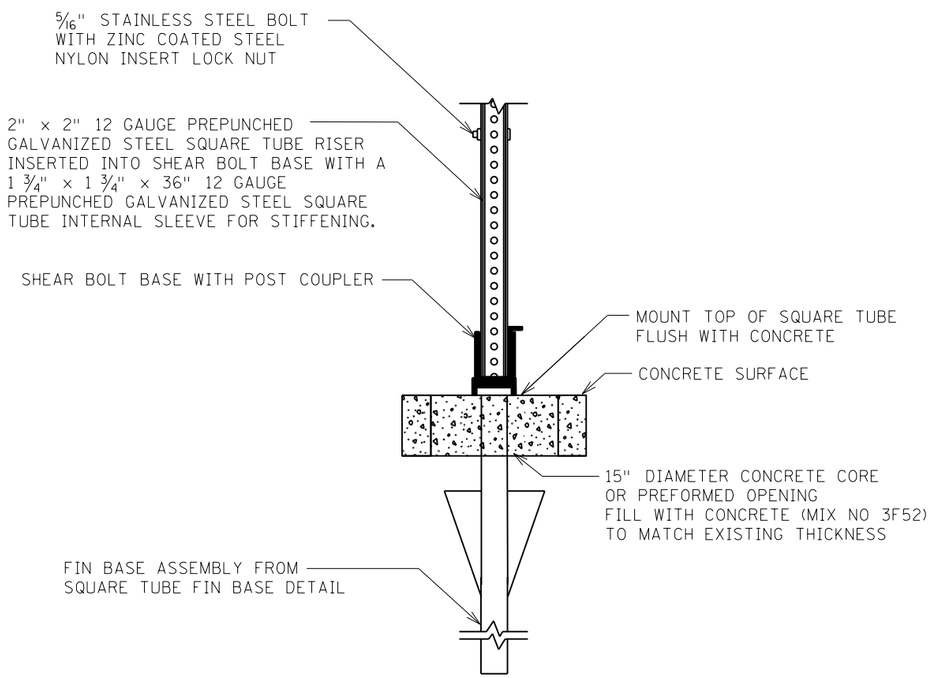
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 283 OF 359

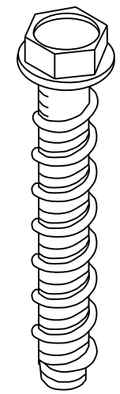


SHEAR BOLT BASE MOUNTED
TO CONCRETE SURFACE

RISER POSTS TO BE MOUNTED CLOSE TO PLUMB. UP TO A MAXIMUM OF 1/2" OF SHIM WASHERS MAY BE USED BETWEEN SHEAR BOLT BASE AND CONCRETE FOR LEVELING. IF MORE THAN 1/2" OF SHIMS ARE REQUIRED, THEN CORE THROUGH THE CONCRETE.



SHEAR BOLT BASE CORED THROUGH CONCRETE



SCREW ANCHOR BOLT

5" LONG CARBON STEEL
THAT MUST MEET A MINIMUM
ALLOWABLE TENSION LOAD
OF 2270 PSI.

NOTES:

1. THE CRASH RESPONSE TYPE FOR THIS STRUCTURE IS BREAKAWAY.
2. TO MEET CRASHWORTHY REQUIREMENTS THE DISTANCE BETWEEN THE BOTTOM OF THE SIGN PANEL AND THE GROUND SURFACE BELOW ANY PORTION OF THE PRIMARY SIGN PANEL MUST BE A MINIMUM OF 7 FEET. SEE TABULATIONS FOR MOUNTING HEIGHT.
3. INSTALLATION OF SHEAR BOLT BASE MUST BE NO EARLIER THAN 3 DAYS AFTER CONCRETE IS PLACED.
4. FOR SHEAR BOLT BASE USE APPROVED PRODUCT FROM MnDOT APPROVED PRODUCTS LIST, PRODUCT MUST BE MODIFIED AS SHOWN.
5. USE ANTI SEIZE ON THE SHEAR BOLT CONNECTIONS.
6. FOR SIGN PANEL MOUNTING DETAILS SEE SQUARE TUBE SIGN MOUNTING DETAILS.
7. SQUARE TUBE SIGN POSTS PER MnDOT SPEC. 3402.

REV 4/20/21

SHEAR BOLT BASE

FOR 2 INCH SQUARE TUBE RISER POST ON CONCRETE

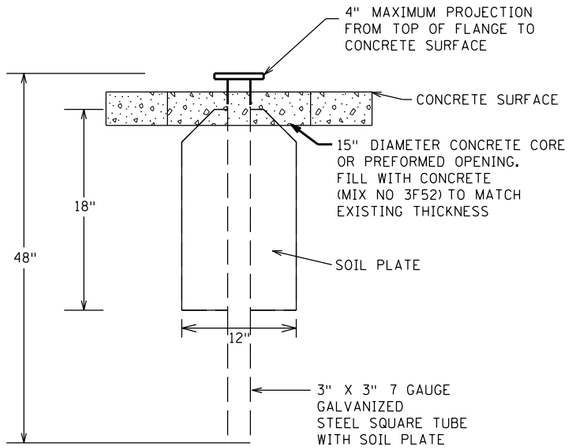
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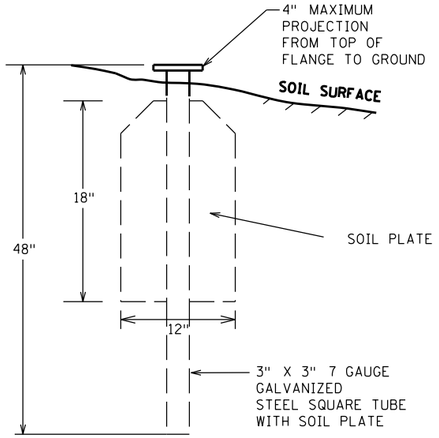
S.P. 1008-87 (TH 41), S.P. 196-010-017,
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

SHEET 284 OF 359

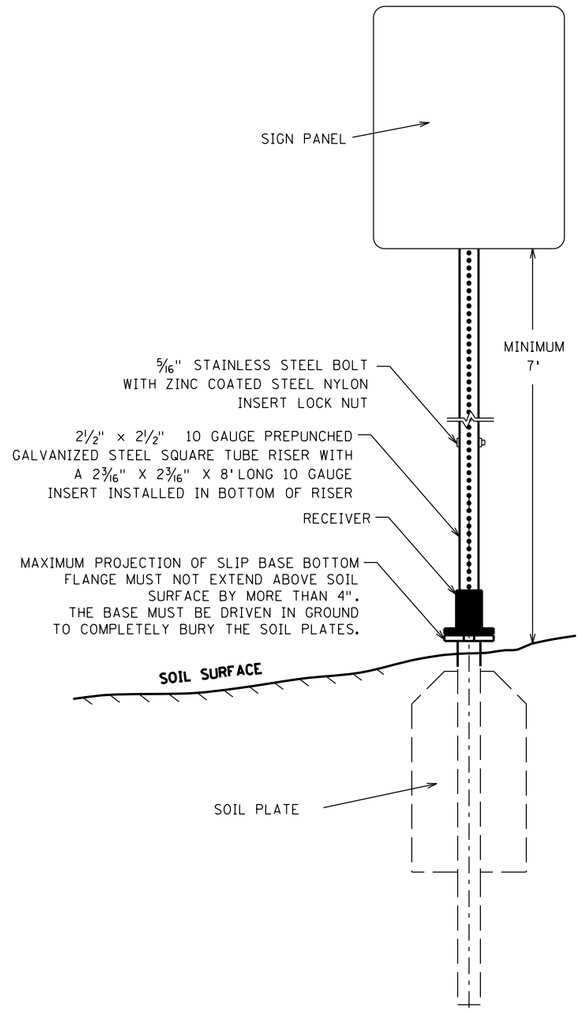
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Packet Page 313 of...
Page 285 of...



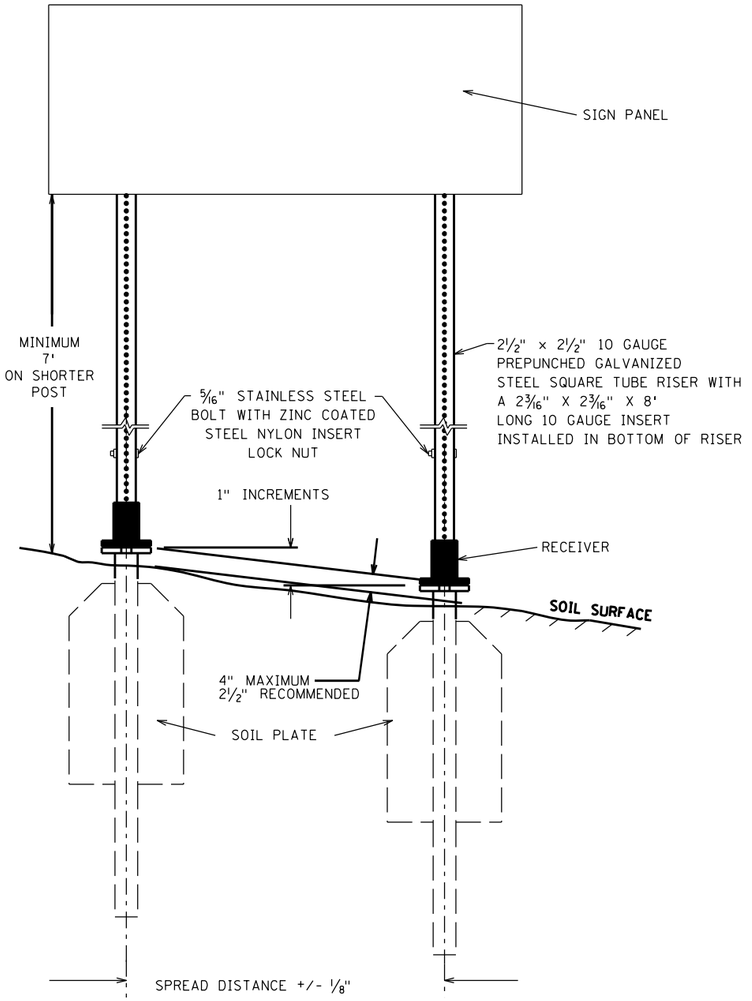
SLIP BASE CORED
THROUGH CONCRETE DETAIL



SLIP BASE IN SOIL DETAIL



SLIP BASE
(TYPICAL PLACEMENT IN SOIL SHOWN)



FOR MULTIPLE POST APPLICATIONS, ENSURE SOIL PLATES ARE COMPLETELY BURIED. IF SOIL SURFACE IS NOT LEVEL THE BASES MUST BE DRIVEN IN UNTIL BASES ARE OFFSET IN 1 INCH INCREMENTS. THE BASES MUST BE TRUE AND SQUARE WITH ONE ANOTHER TO ENSURE PROPER UNRESTRICTED INSERTION OF STEEL TUBE RISERS. SIGN PANELS SHALL BE MOUNTED LEVEL.

MULTIPLE POST SLIP BASE DETAIL

NOTES:

1. THE CRASH RESPONSE TYPE FOR THIS STRUCTURE IS BREAKAWAY.
2. TO MEET CRASHWORTHY REQUIREMENTS THE DISTANCE BETWEEN THE BOTTOM OF THE PRIMARY SIGN PANEL AND THE GROUND SURFACE BELOW ANY PORTION OF THE PRIMARY SIGN PANEL MUST BE A MINIMUM OF 7 FEET. SEE TABULATIONS FOR MOUNTING HEIGHT.
3. FOR SLIP BASE USE APPROVED PRODUCT FROM MNDOT APPROVED PRODUCTS LIST. PRODUCTS SHALL BE MODIFIED AS SHOWN.
4. 1/16" THICK LEVELING SHIMS MAY BE USED TO PLUMB TOP HALF. SHIMS NEED TO BE PLACED UNDER TEFLON COATED SLIP WASHER MAXIMUM OF 2 SHIMS PER NOTCH POINT.
5. FOR SIGN PANEL MOUNTING DETAILS SEE SQUARE TUBE SIGN MOUNTING DETAILS.
6. SQUARE TUBE SIGN POST PER MnDOT SPEC. 3402.

REV 5/04/21

SLIP BASE

FOR 2 1/2 INCH SQUARE TUBE RISER POST

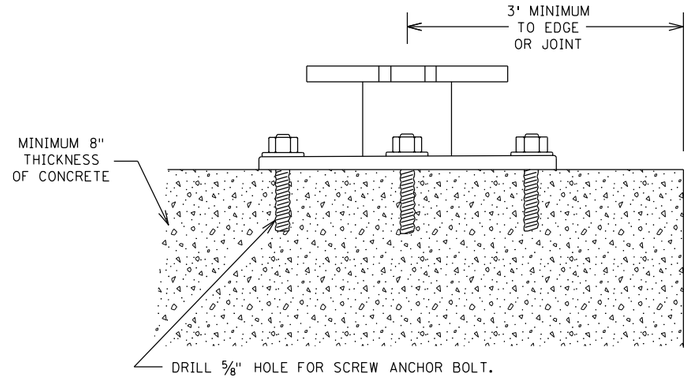
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SIGNING & STRIPING PLAN

SHEET 285 OF 359

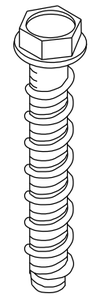
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THE MINIMUM CONCRETE SURFACE REQUIRED FOR MOUNTING THE SLIP BASE IS 6 FEET BY 6 FEET.

SLIP BASE MOUNTED TO CONCRETE SURFACE DETAIL

RISER POSTS TO BE MOUNTED CLOSE TO PLUMB. UP TO A MAXIMUM OF 1/2" OF SHIM WASHERS MAY BE USED BETWEEN SHEAR BOLT BASE AND CONCRETE FOR LEVELING. IF MORE THAN 1/2" OF SHIMS ARE REQUIRED, THEN CORE THROUGH THE CONCRETE. IF CONCRETE IS LESS THAN 8" THICK, THEN CORE THROUGH THE CONCRETE.



SCREW
ANCHOR BOLT

6" LONG CARBON STEEL
WITH 2700 POUNDS OF
PULL OUT STRENGTH.

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SLIP BASE

MOUNTED TO CONCRETE SURFACE

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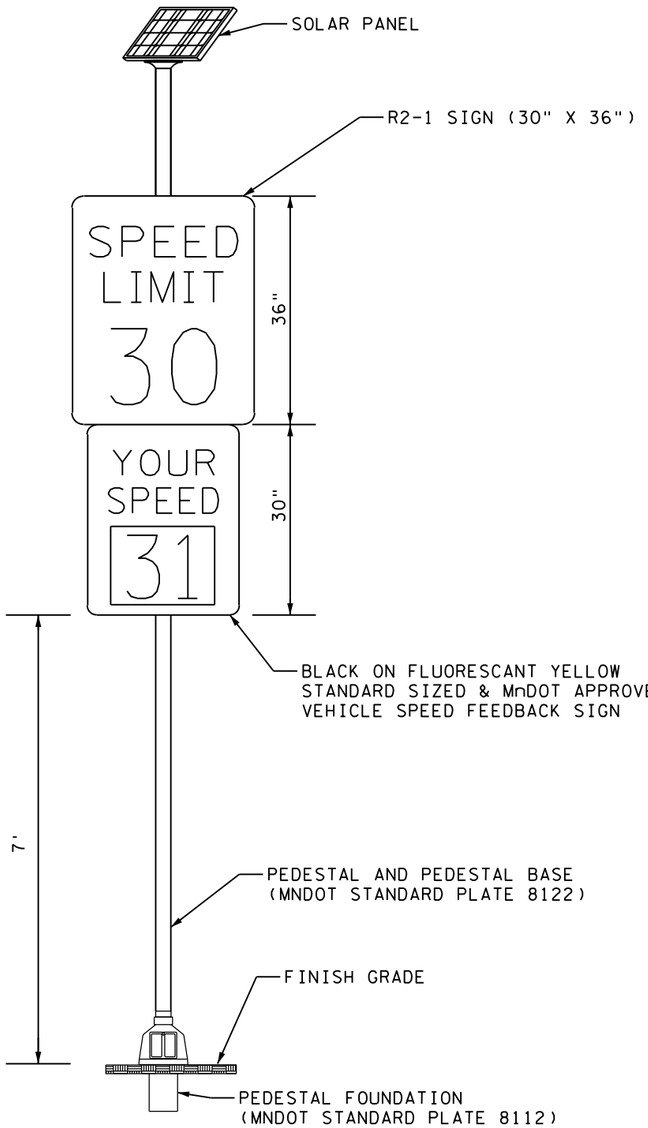
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SHEET 286 OF 359

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NOTES:
1. SEE MNDOT STANDARD PLATE NO. 8122 "PEDESTAL AND PEDESTAL BASE" FOR PEDESTAL DETAILS.
2. SEE MNDOT STANDARD PLATE NO. 8112 "PEDESTAL FOUNDATION" FOR PEDESTAL FOUNDATION DETAILS.
3. STATIC SIGNS REQUIRED FOR THE VEHICLE SPEED FEEDBACK SIGN SYSTEM ARE INCLUDED IN THE VEHICLE SPEED FEEDBACK SIGN PAY ITEM.
4. MOUNTING HEIGHTS FOR ALL SIGNS AND DEVICES SHALL COMPLY WITH THE MN MUTCD.
5. SEE MNDOT APPROVED PRODUCTS LIST FOR ALLOWABLE VEHICLE SPEED FEEDBACK SIGN PRODUCTS.
6. SIGN SHAL BE PROGRAMMED ACCORDING TO THE MNDOT APPROVED PRODUCTS LIST'S PRODUCT REQUIREMENTS DOCUMENT.



VEHICLE SPEED FEEDBACK SIGN ASSEMBLY

NOT TO SCALE

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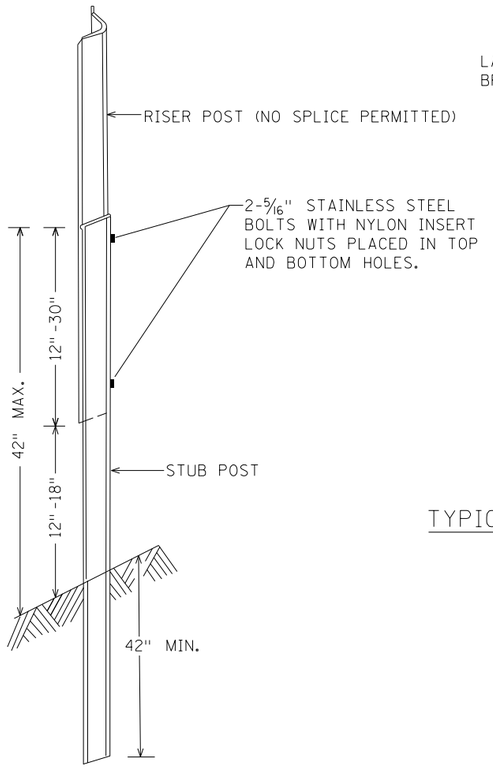
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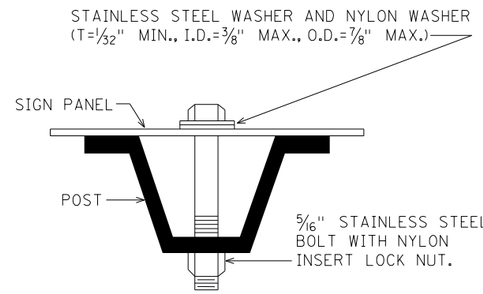
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S.P. 196-010-018, S.P. 196-020-014
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SIGNING & STRIPING PLAN

SHEET 287 OF 359

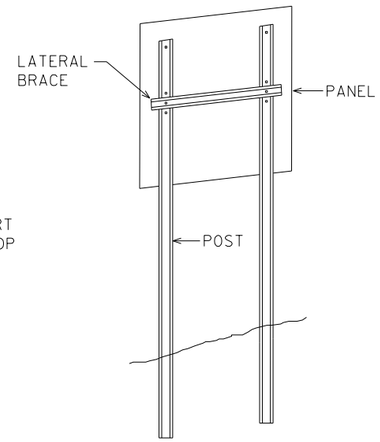
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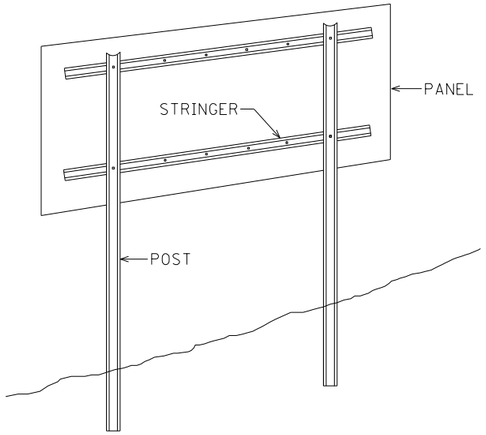
U POST BREAKAWAY SPLICE



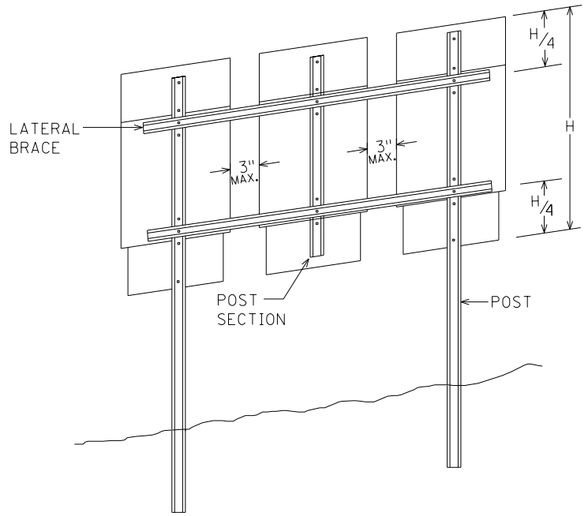
U POST MOUNTING
TYPE C SIGNS



TYPICAL TYPE C INSTALLATION



TYPICAL TYPE D INSTALLATION



MODIFIED TYPE C INSTALLATION

U CHANNELS SHALL ONLY BE INSTALLED ON CSAH 61 FOR SOIL MOUNTED SIGNS

NOTES:

1. USE 3 LB/FT STUB POSTS. SHALL CONFORM TO MNDOT 3401.
2. USE 2.5 LB/FT RISER POSTS, STRINGERS, KNEE BRACES AND LATERAL BRACES. ALL SHALL CONFORM TO MNDOT 3401.
3. SEE SIGN DATA SHEETS FOR NUMBER OF POSTS, KNEE BRACES, POST LENGTHS AND SPACINGS, AS DETERMINED FROM TEM CHARTS 6.3 AND 6.4.
4. IF MORE THAN TWO POSTS ARE NEEDED, THE MINIMUM SPACING SHALL BE 45" BETWEEN POSTS.
5. TYPE D SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 24" MAXIMUM INTERVALS IN ACCORDANCE WITH THE TYPE D STRINGER AND PANEL-JOINT DETAIL (SEE MNDOT STANDARD SIGNS AND MARKINGS MANUAL).
6. MOUNTING (PUNCH CODE) FOR TYPE C SIGN PANELS SHALL BE AS INDICATED IN THE MNDOT STANDARD SIGNS AND MARKINGS MANUAL UNLESS OTHERWISE SPECIFIED.
7. ALL RISER (VERTICAL) U POSTS SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 7' LONG.
8. USE STAINLESS STEEL 5/16" BOLTS, WASHERS AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
9. STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
10. BRACING STUBS SHALL BE NO MORE THAN 4" ABOVE GROUND AND EMBEDDED AT LEAST 42".
11. A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MNDOT 3306 AND GALVANIZED IN ACCORDANCE WITH MNDOT 3394.
12. COLLARS SHALL BE USED TO SHIM OVERLAYS AND LEGEND COMPONENTS AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MNDOT 3352.2A6.
13. 2 POST TYPE C SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 60" OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
14. WHERE 2 SINGLE POST TYPE C SIGNS ARE INSTALLED SIDE BY SIDE, THEY SHALL BE REINFORCED LATERALLY BY AT LEAST 2 BRACES, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS.
15. WHERE 3 OR MORE TYPE C SIGNS ARE INSTALLED SIDE BY SIDE, THEY SHALL BE REINFORCED LATERALLY BY AT LEAST 2 BRACES, BOLTED AT EACH POST AND POST SECTION AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN MODIFIED TYPE C INSTALLATION.

TYPE C & D SIGN
STRUCTURAL DETAILS

Sheet 1 of 2

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Tom Bu 3/18/2022

REVISED: 4-28-17

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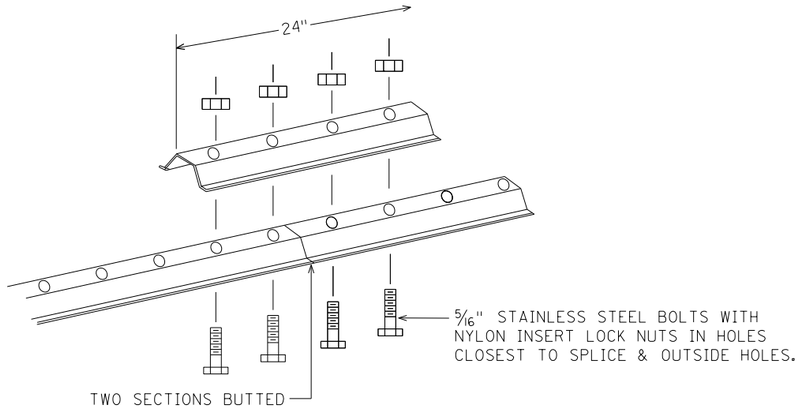
Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

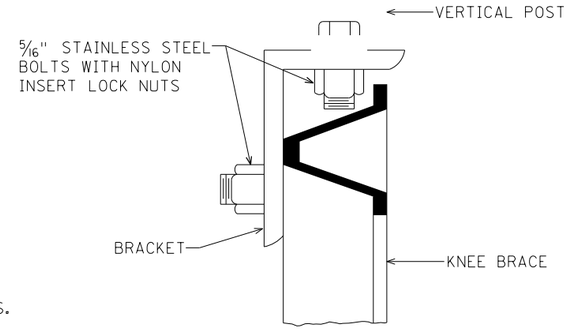
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
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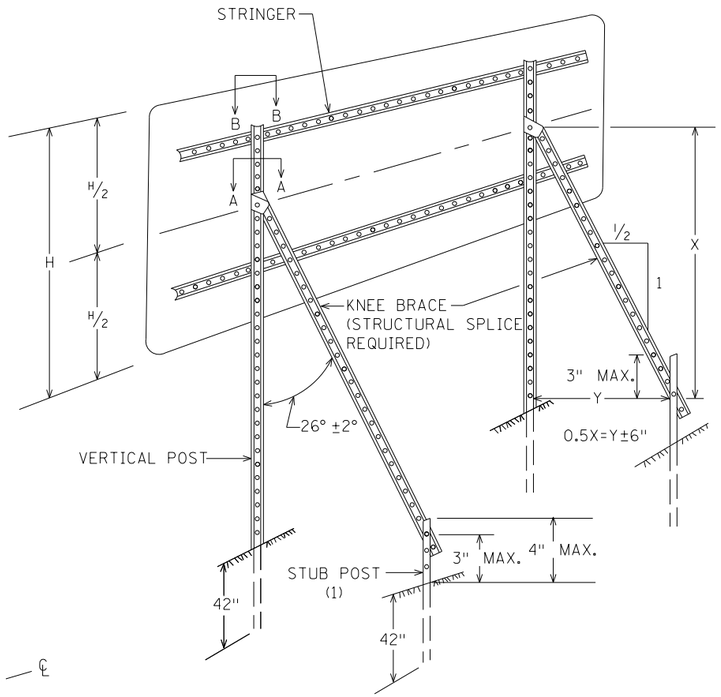
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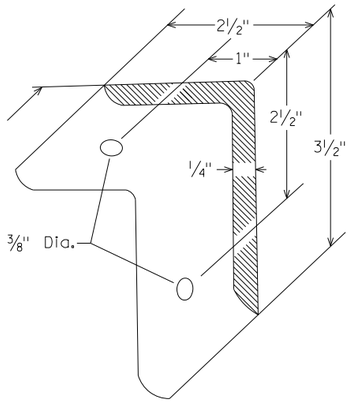
LATERAL BRACE OR STRINGER
SPLICE DETAIL (EXPLODED VIEW)



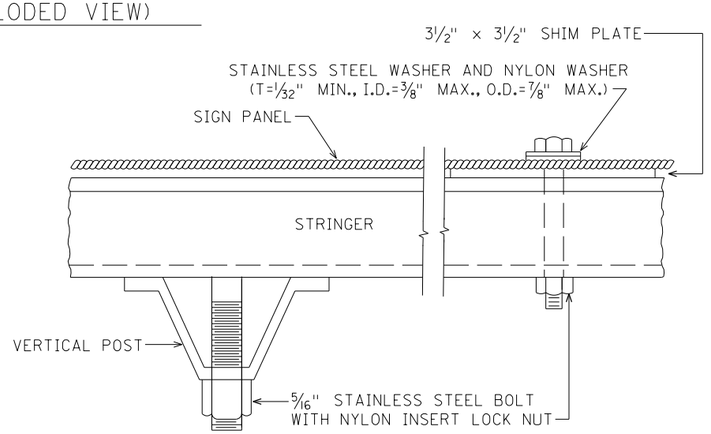
SECTION A-A



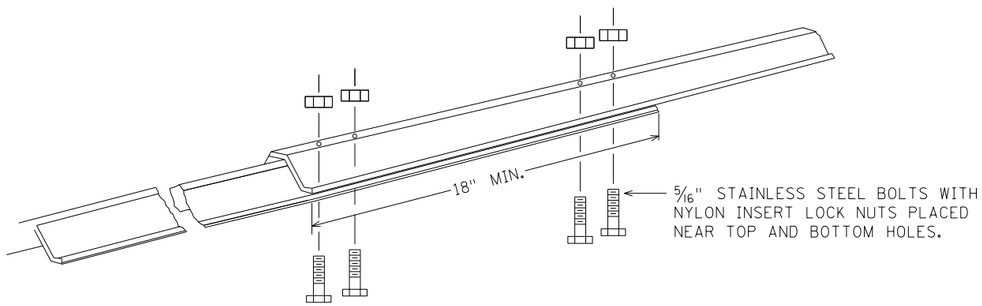
TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS



A-FRAME BRACKET

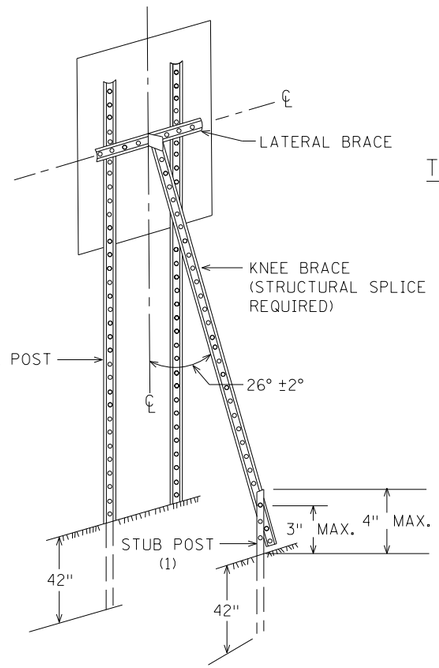


SECTION B-B

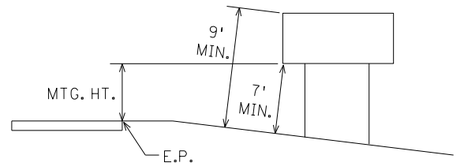


STRUCTURAL SPLICE

(USE WHEN IT IS NECESSARY TO FABRICATE THE CORRECT LENGTH OF POST FROM TWO PIECES)



TYPICAL "A-FRAME" INSTALLATION
TYPE "C" SIGNS



TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY RELATIVE TO VERTICAL POST. ATTACH STUB POST AND KNEE BRACE BACK TO BACK.

U CHANNELS SHALL ONLY BE INSTALLED ON CSAH 61 FOR SOIL MOUNTED SIGNS

TYPE C & D SIGN
STRUCTURAL DETAILS

Sheet 2 of 2

REVISED: 5-5-2017

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

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DRAWN	MPN
CHECKED	MSL

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNING & STRIPING PLAN

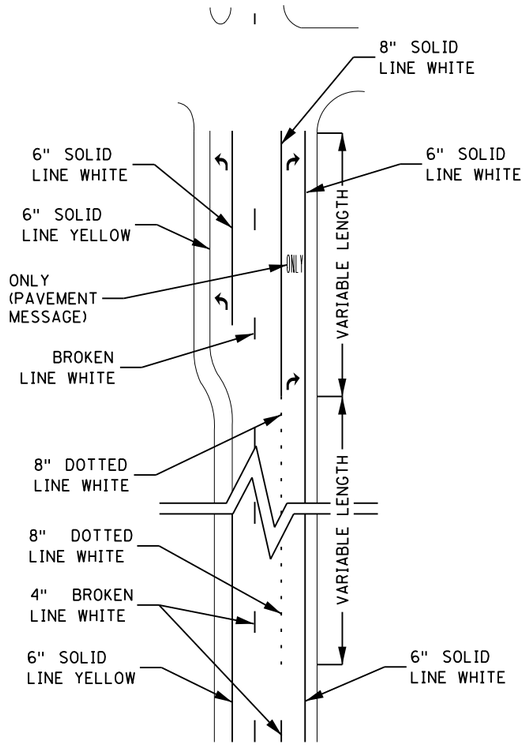
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7.B Adopt Resolution 2022-48, Approve...
Packet Page 318 of...
Page 290 of...

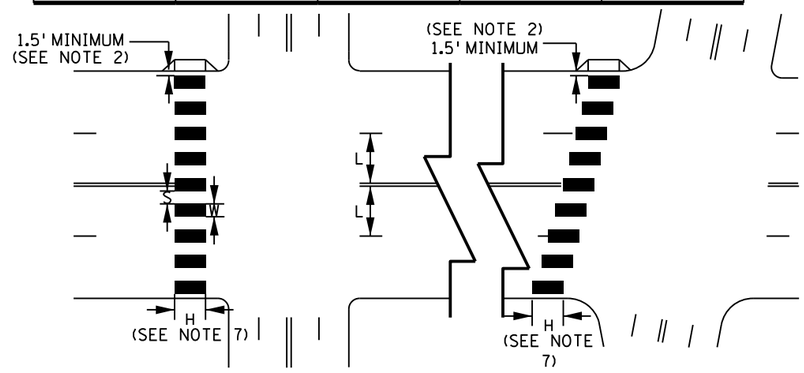
APPLICATION OF LANE-DROP AT INTERSECTION



PUBLISHED BY OTE: 16 NOV 2021 | MODIFIED:

PEDESTRIAN CROSSWALK MARKINGS

(L) WIDTH OF INSIDE LANE	(W) WIDTH OF PAINTED AREA	(S) WIDTH OF SPACE	ALTERNATE (W) WIDTH OF PAINTED AREA	ALTERNATE (S) WIDTH OF SPACE
9′	2.0′	2.5′	—	—
10′	2.5′	2.5′	2.0′	3.0′
11′	2.5′	3.0′	2.0′	3.5′
12′	3.0′	3.0′	2.5′	3.5′
13′	3.0′	3.5′	—	—



NOTES:

1. PAINTED AREAS TO BE CENTERED ON CENTERLINE AND LANE LINES.
2. A MINIMUM OF 1.5 FT. CLEAR DISTANCE SHALL BE LEFT ADJACENT TO THE CURB FACE. IF LAST PAINTED AREA FALLS INTO THIS DISTANCE IT MUST BE OMITTED.
3. ON TWO LANE TWO WAY STREETS, USE SPACING SHOWN FOR AN 11 FT. INSIDE LANE.
4. FOR DIVIDED ROADWAYS, ADJUSTMENTS IN SPACING OF THE BLOCKS SHOULD BE MADE IN THE MEDIAN SO THAT THE BLOCKS ARE MAINTAINED IN THEIR PROPER LOCATION ACROSS THE TRAVELED PORTION OF THE ROADWAY.
5. AT SKEWED CROSSWALKS, THE BLOCKS ARE TO REMAIN PARALLEL TO THE LANE LINES AS SHOWN.
6. THE BLOCKS SHALL BE PLACED SO THAT THEY ARE NOT LOCATED IN THE WHEEL PATH OF THE VEHICLES.
7. THE BLOCKS SHALL BE A MINIMUM OF 6' LONG AND AT LEAST AS LONG AS THE TRUNCATED DOMES, FOR FANNED TRUNCATED DOMES THE BLOCKS SHALL BE AT LEAST AS LONG AS THE APPROACHING SIDEWALK OR SHARED USE PATH.
8. THE ALTERNATE (W) AND (S) MAY BE USED WHEN BLOCKS LONGER THAN 6' (H) ARE USED.

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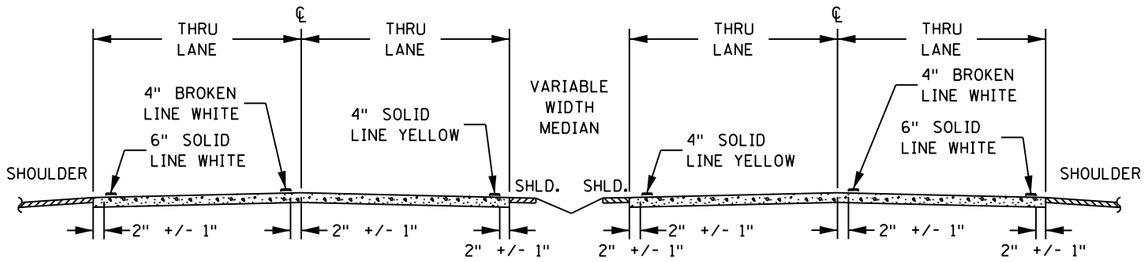
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
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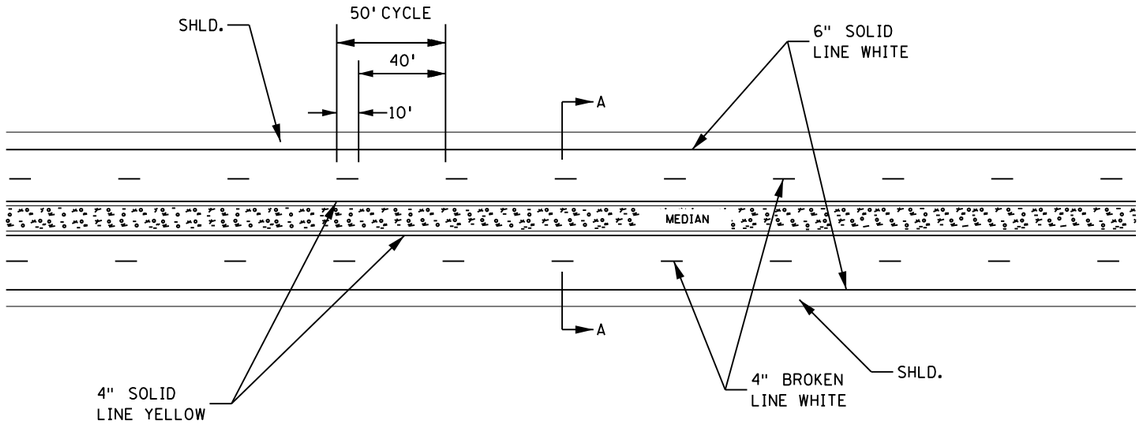
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FOUR-LANE DIVIDED LANE



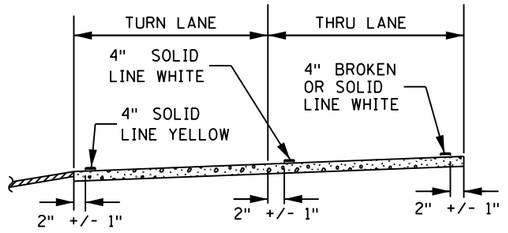
SECTION A-A
FOUR LANES



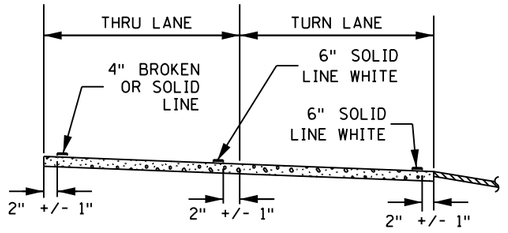
NOTE: 4" EDGELINES SHALL BE USED ON CSAH 61

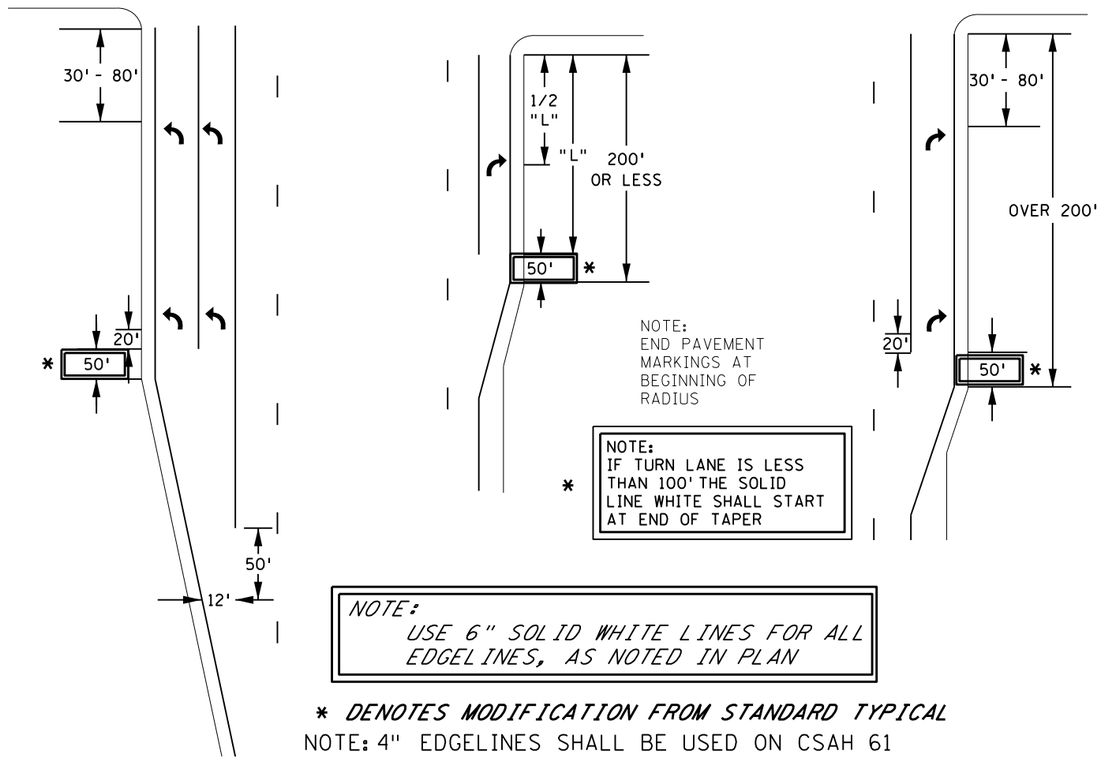
TURN LANE WITH ARROW MESSAGE

LEFT TURN LANE



RIGHT TURN LANE





NOTE:
USE 6" SOLID WHITE LINES FOR ALL EDGELINES, AS NOTED IN PLAN

** DENOTES MODIFICATION FROM STANDARD TYPICAL*

NOTE: 4" EDGELINES SHALL BE USED ON CSAH 61

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LIC. NO. 58850 DATE 03-02-2022

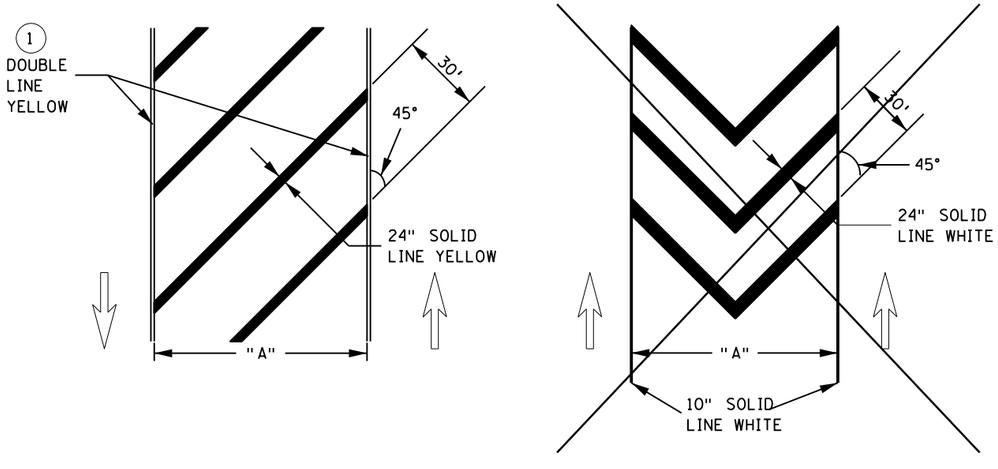
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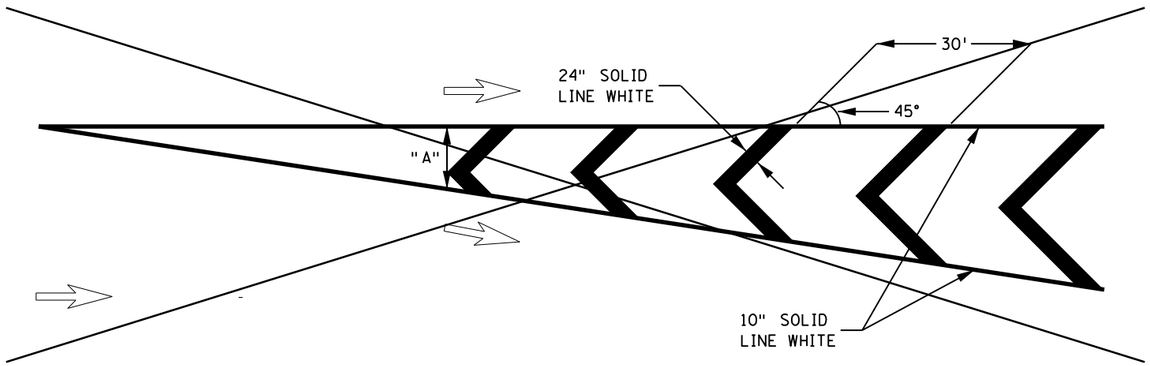
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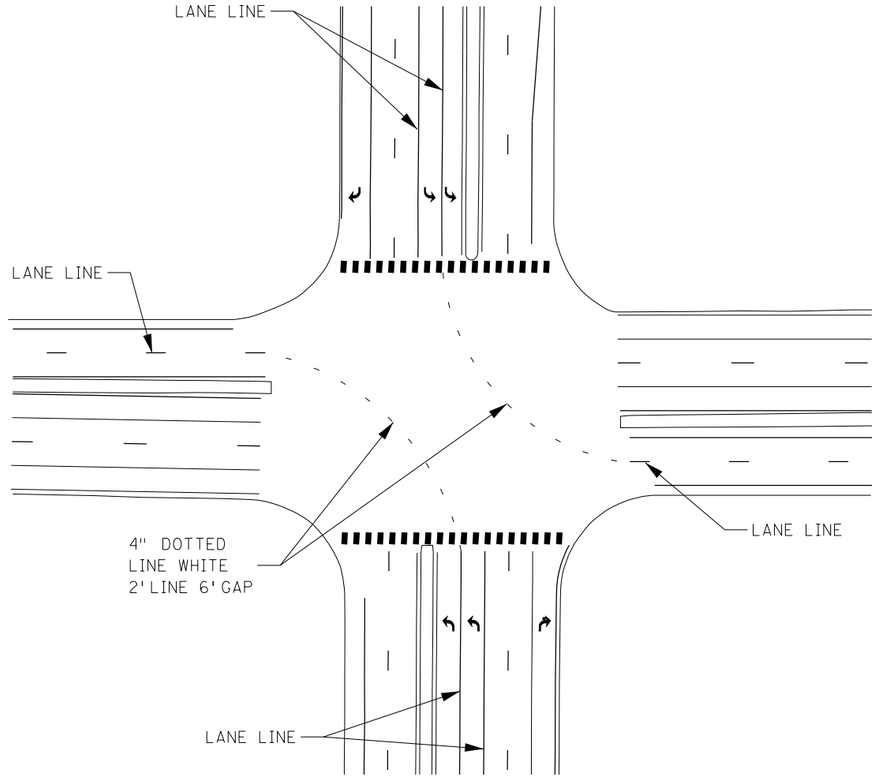
CROSSHATCHING



WHEN "A" IS LESS THAN 4' NO CROSSHATCHING REQUIRED.



DOUBLE LEFT TURN LANE
LINE EXTENSIONS THRU INTERSECTIONS



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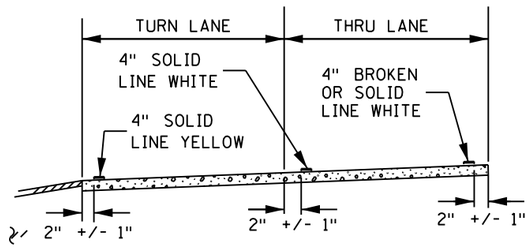
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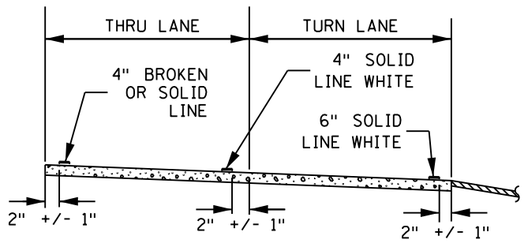
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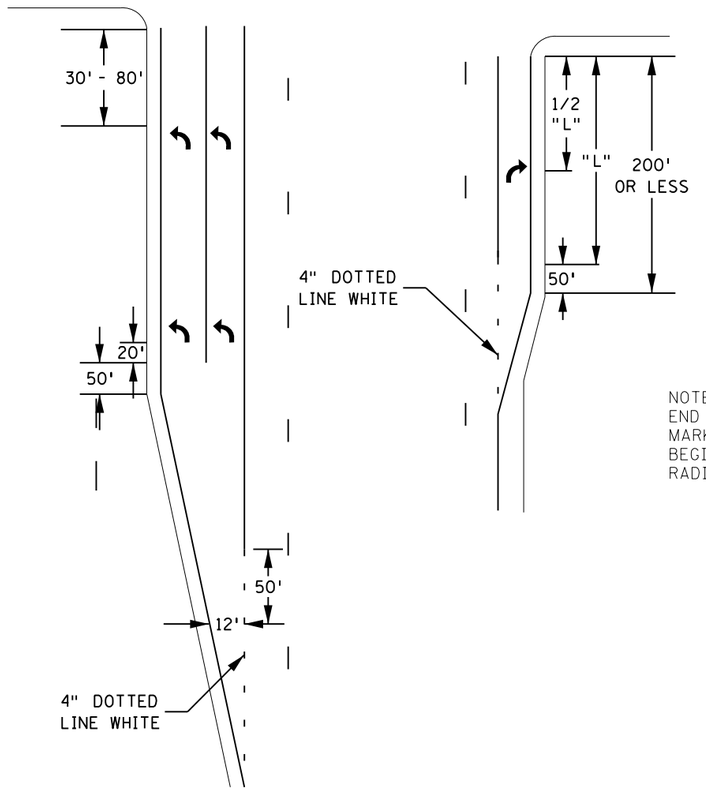
TURN LANE WITH ARROW MESSAGE AND DOTTED LINE EXTENSION

LEFT TURN LANE

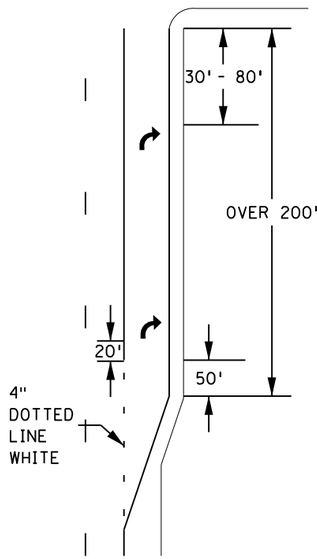


RIGHT TURN LANE





NOTE:
END PAVEMENT MARKINGS AT BEGINNING OF RADIUS



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ABBREVIATIONS

AWF	ADVANCE WARNING FLASHER
C.D.	COUNT DOWN
D2-1 (e.g.)	DETECTOR (PHASE 2, NO. 1)
DEG	DEGREES
DWK	DON'T WALK
F&I	FURNISH AND INSTALL
FL	FLASH/FLASHING
FYA	FLASHING YELLOW ARROW
FYLA	FLASHING YELLOW LEFT ARROW
GLA	GREEN LEFT ARROW
GRN	GREEN INDICATION
GR. RD.	GROUND ROD
GRA	GREEN RIGHT ARROW
GTA	GREEN THRU ARROW
HH	HANDHOLE
IND	INDICATION
INP	INPLACE
INS. GR.	INSULATED GROUND
JB	JUNCTION BOX
LED	LIGHT EMITTING DIODE
LUM	LUMINAIRE
NEU	NEUTRAL
P1-1 (e.g.)	PEDESTRIAN HEAD (PHASE 1, NO. 1)
PB	PUSH BUTTON
PB2-1 (e.g.)	PUSH BUTTON (PHASE 2, NO. 1)
PED	PEDESTRIAN
RED	RED INDICATION
R&S	REMOVE AND SALVAGE
RLA	RED LEFT TURN ARROW
S&I	SALVAGE AND INSTALL
SPR	SPARE
STA	STATION
WLK	WALK INDICATION
YEL	YELLOW INDICATION
YLA	YELLOW LEFT ARROW
YRA	YELLOW RIGHT ARROW

SYMBOLS

- HANDHOLE
- EQ.G CONNECTION
- EVP CONFIRMATORY LIGHT
- EVP DETECTOR
- EVP DETECTOR AND CONFIRMATORY LIGHT
- SPLICE
- FIBER OPTIC SPLICE VAULT (FO)
- PULL VAULT (PV)
- LUMINAIRE NO. (A)
- SIGNAL BASE NO. (3)
- SIGNAL HEAD NO./FLASHER HEAD NO. (3-2)
- BARREL MOUNT BASE NO. (BM/4)
- WOOD POLE NO. (WP/1)
- TELEVISION CAMERA (CCTV)
- VIDEO DETECTION (V)

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

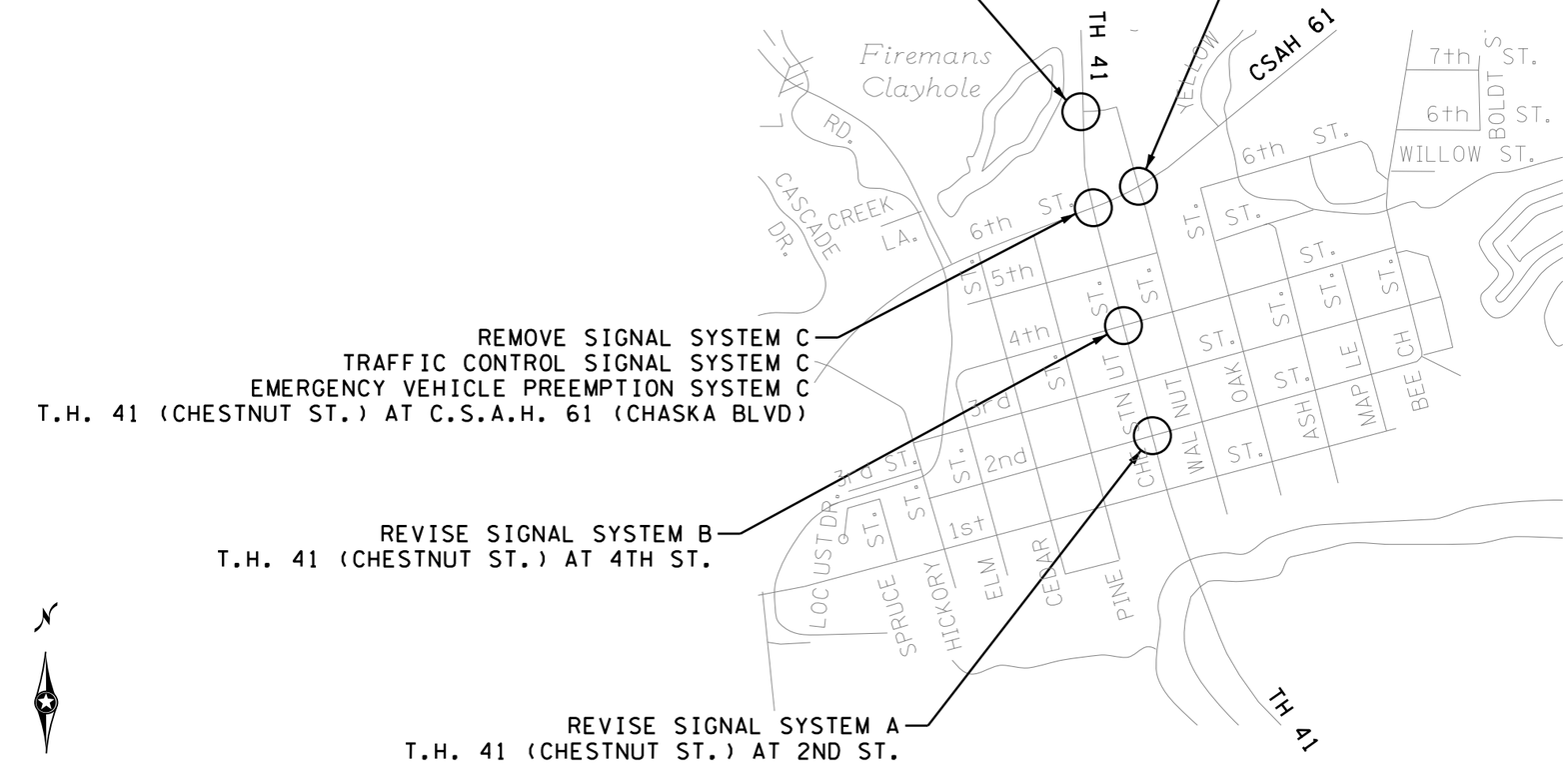
TRAFFIC CONTROL SIGNAL SYSTEM E
EMERGENCY VEHICLE PREEMPTION SYSTEM E
T.H. 41 (CHESTNUT ST.) AT WALNUT ST.

REMOVE SIGNAL SYSTEM D
TRAFFIC CONTROL SIGNAL SYSTEM D
EMERGENCY VEHICLE PREEMPTION SYSTEM D
C.S.A.H. 61 (CHASKA BLVD.) AT WALNUT ST.

REMOVE SIGNAL SYSTEM C
TRAFFIC CONTROL SIGNAL SYSTEM C
EMERGENCY VEHICLE PREEMPTION SYSTEM C
T.H. 41 (CHESTNUT ST.) AT C.S.A.H. 61 (CHASKA BLVD)

REVISE SIGNAL SYSTEM B
T.H. 41 (CHESTNUT ST.) AT 4TH ST.

REVISE SIGNAL SYSTEM A
T.H. 41 (CHESTNUT ST.) AT 2ND ST.





INDEX MAP

1000
SCALE IN FEET

STANDARD PLATES - SIGNAL SYSTEMS

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

	PLATE NO.		DESCRIPTION
►	8111	E	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
►	8112	I	PEDESTAL FOUNDATION
▻	8117	G	PRECAST CONCRETE HAND HOLE
▻	8118	D	SERVICE EQUIPMENT AND POLE
▻	8119	C	GROUND MOUNTED CABINET FOUNDATION
►	8120	Q	POLE FOUNDATION (PA-85)
►	8121	H	TRANSFORMER BASE AND POLE BASE PLATE (2 SHEETS)
►	8122	F	PEDESTAL AND PEDESTAL BASE (2 SHEETS)
►	8123	G	POLE AND MAST ARM (2 SHEETS)
►	8126	L	POLE FOUNDATION (PA90 AND PA100)
►	8129	A	SHIM AND WASHER
▻	8130	E	SAW CUT LOOP DETECTORS
▻	8132	B	PREFORMED RIGID PVC CONDUIT LOOP DETECTOR

► STANDARD PLATES APPLICABLE TO THIS PROJECT

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www.bolton-menk.com

REV.	BY	DATE

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

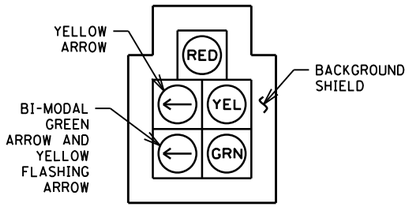
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S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

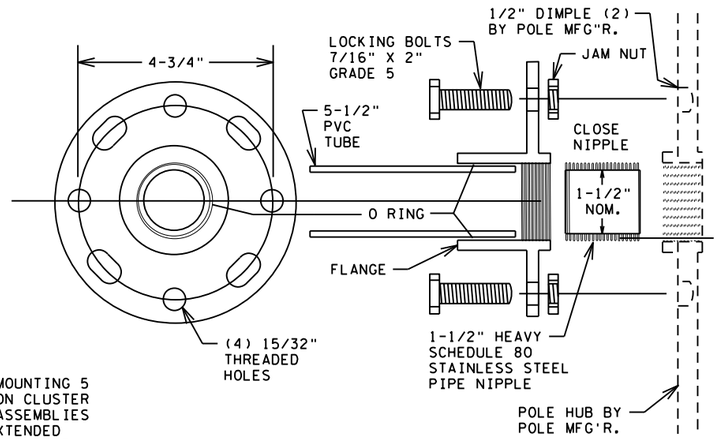
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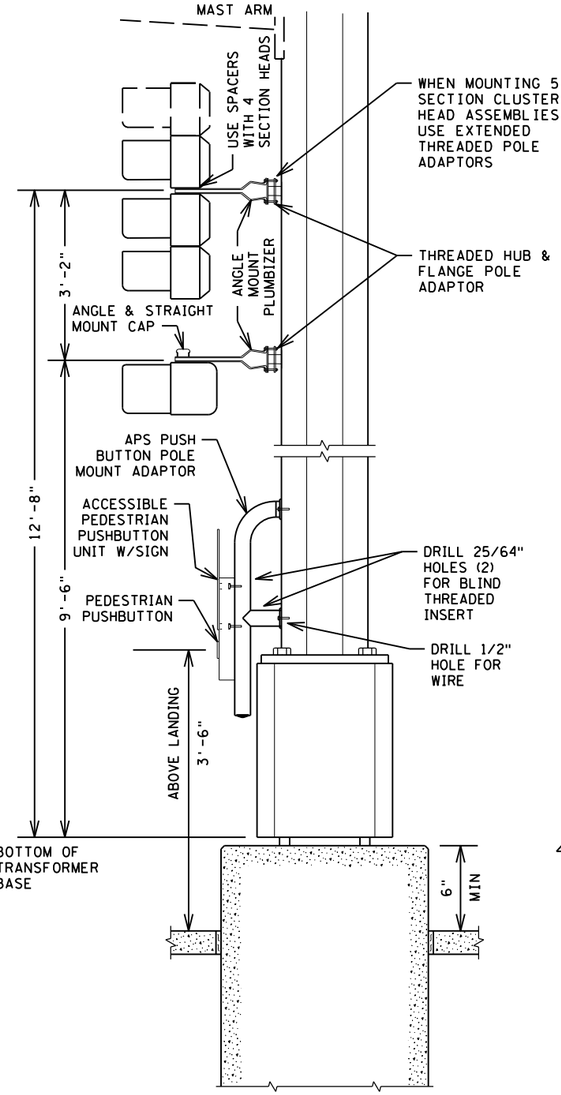
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5 SECTION FYA CLUSTER HEAD DETAIL



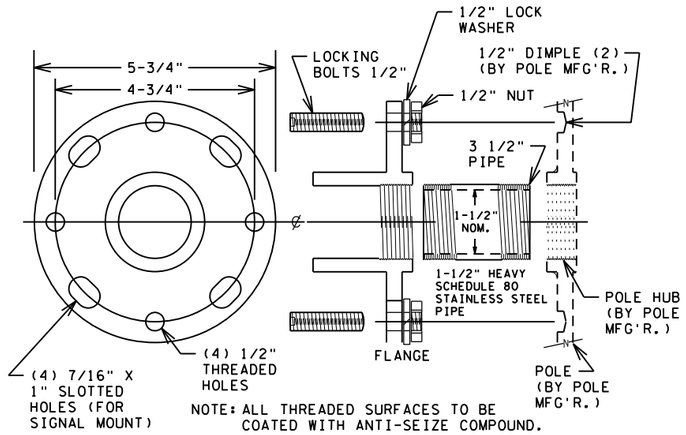
THREADED HUB AND FLANGE POLE ADAPTOR



TYPICAL SIGNAL POLE MOUNTING

NOT TO SCALE



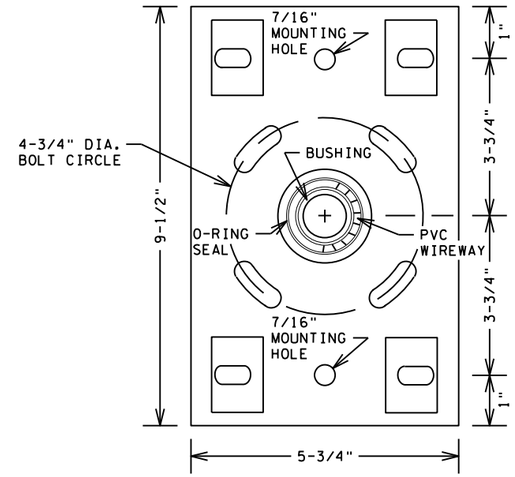


NOTE: ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.

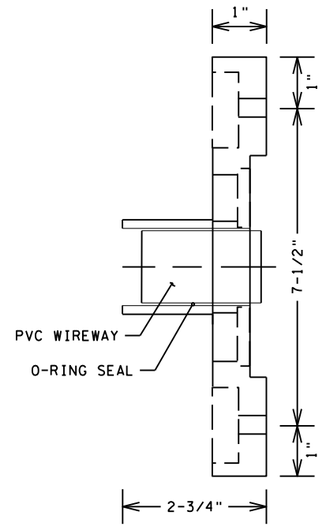
EXTENDED THREADED POLE ADAPTER

NOTES:

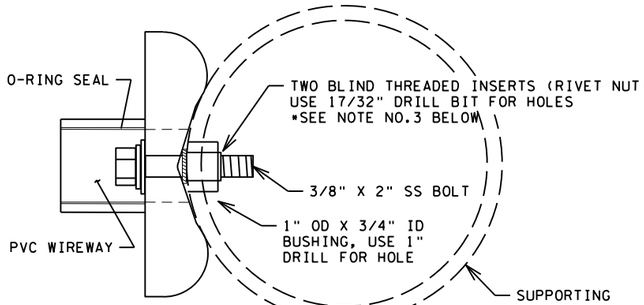
1. ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.
2. USE SIGNAL HEAD MOUNTED SPACERS FOR 4 SECTION POLY HEADS.
3. SEE STANDARD PLATE NUMBER 8123 FOR ADDITIONAL SIGNAL POLE DETAILS.
4. EXTENDED THREADED POLE ADAPTOR ONLY USED WITH 5 SECTION CLUSTER HEADS.



BOLT ON HUB & FLANGE



SIDE VIEW

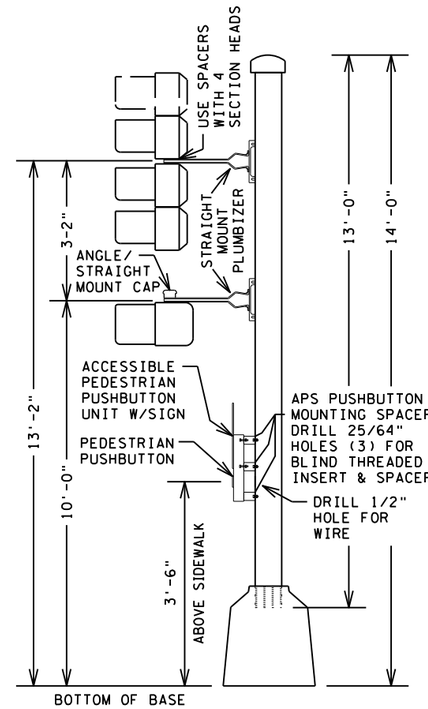


TOP VIEW



NOTES:

1. ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.
2. USE SIGNAL HEAD MOUNTED SPACERS FOR 4 SECTION POLY HEADS.
3. BLIND THREADED INSERTS (RIVET NUT) MUST BE INSERTED USING MANUFACTURERS SPECIFIC INSERTION TOOL. NO OTHER METHOD IS ACCEPTABLE.
4. SEE STANDARD PLATE NUMBER 8122 FOR ADDITIONAL PEDESTAL POLE DETAILS.



TYPICAL PEDESTAL MOUNTING

NOT TO SCALE

POLE MOUNT DETAIL

BOLTON & MENK
12224 NICOLLET AVENUE
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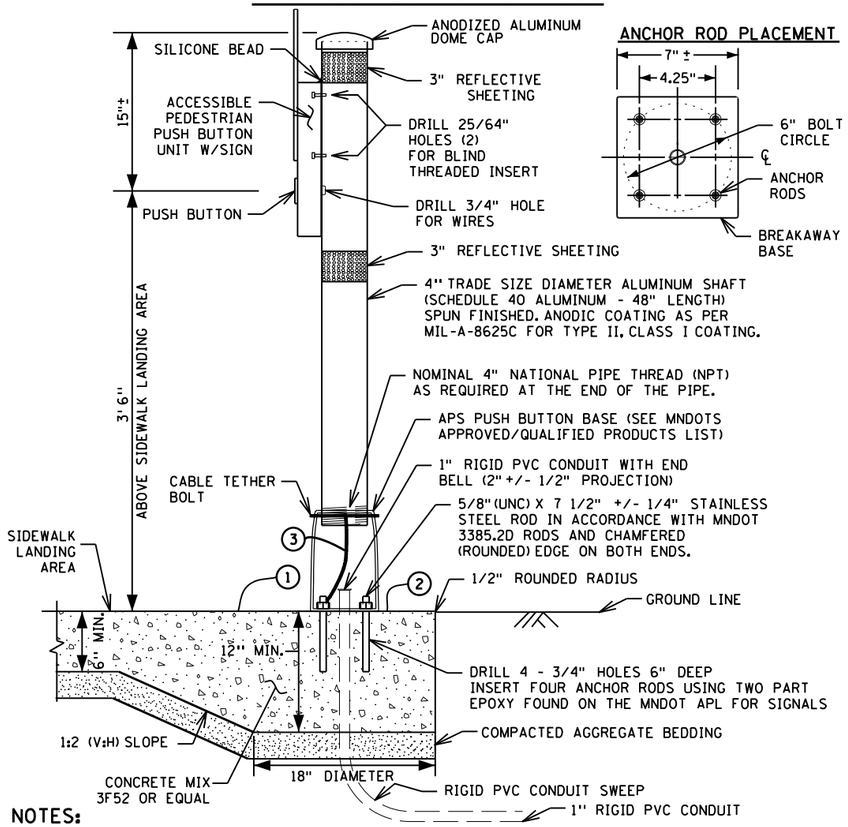
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SIGNAL PLAN

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APS PUSH BUTTON STATION



NOTES:

PLACEMENT AND ORIENTATION OF THE PUSH BUTTON STATION IS CRITICAL. MOUNT THE BUTTON SO THAT THE FACE IS PARALLEL WITH THE ASSOCIATED CROSSWALK. SCREW IN SHAFT TO A TIGHTENED POSITION BEFORE MOUNTING ACCESSIBLE PEDESTRIAN PUSH BUTTON UNIT TO THE SHAFT.

ORIENT ACCESS OPENING ON THE BREAKAWAY PEDESTAL DIRECTLY BELOW THE APS BUTTON.

PLUMB THE PUSH BUTTON STATION WITH LEVELING SHIMS IN ACCORDANCE WITH STANDARD PLATE 8129.

INSTALL BLIND THREADED INSERTS USING MANUFACTURER'S SPECIFIC INSERTION TOOL.

USE ZINC PLATED STEEL 1/4 - 20 UNC BLIND THREADED INSERTS SUITABLE FOR MOUNTING ON SURFACE WALL THICKNESS OF .337. APPROVED BLIND INSERTS ARE LISTED ON MNDOT'S APPROVED/QUALITY PRODUCTS LIST WEBSITE FOR TRAFFIC SIGNALS.

USE APS 1/4 - 20 STAINLESS STEEL MOUNTING BOLTS. APPLY BRUSH ON ANTI SEIZE COMPOUND TO BOLTS PRIOR TO ASSEMBLY.

APPLY A BEAD OF 100% SILICONE SEALANT ALONG THE TOP OF THE PUSH BUTTON UNIT WHERE IT COMES IN CONTACT WITH THE 4" SHAFT.

USE WHITE REFLECTIVE SHEETING AT INTERSECTION CORNERS AND YELLOW REFLECTIVE SHEETING IN CENTER MEDIANS. APPROVED TUBE DELINEATOR SHEETING IS LISTED ON MNDOT'S APPROVED/QUALIFIED PRODUCTS LIST WEBSITE FOR SIGNING.

AN 18" X 6" FIBER FORMING TUBE MAY BE USED FOR THE LOWER HALF OF THE FOUNDATION WHEN CONDITIONS DO NOT ALLOW FOR THE 18" X 6" HOLE TO STAND OPEN.

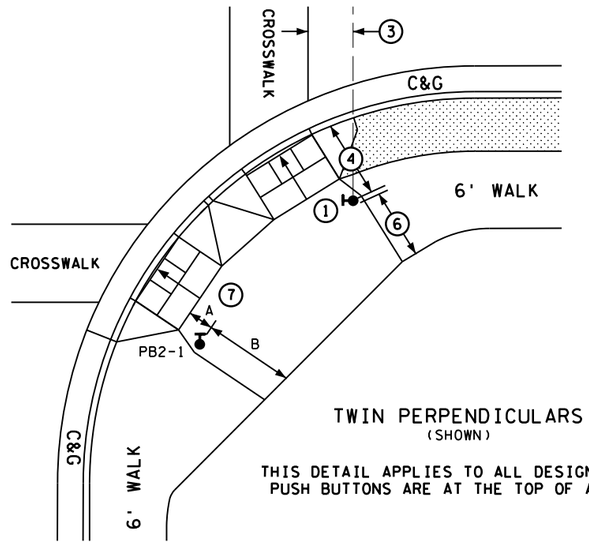
1. THE PUSH BUTTON STATION FOUNDATION IS MONOLITHIC (POURED AT ONE TIME) WITH THE SIDEWALK. PROVIDE A 1:2 (V:H) SLOPE GRADE WHERE THE 6" MIN SIDEWALK DEPTH TRANSITIONS TO THE 12" MIN FOUNDATION DEPTH. MAINTAIN THE COMPACTED AGGREGATE BEDDING AND THICKNESS USED FOR THE SIDEWALK THROUGHOUT THE SLOPE AND FOUNDATION GRADING. PROVIDE 1:2 (V:H) SLOPE GRADING 360 DEGREES FOR THE TRANSITION FROM THE SIDEWALK TO THE FOUNDATION WHEN THE FOUNDATION IS NOT LOCATED NEAR EDGE OF SIDEWALK AND IS SURROUNDED BY CONCRETE WALK.
2. ENSURE CONCRETE CONTROL JOINTS AND EDGE OF CONCRETE WALK ARE A MINIMUM 9" FROM THE CENTER OF THE PUSH BUTTON FOUNDATION.
3. INSTALL THE MANUFACTURER PROVIDED CABLE TETHER ASSEMBLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

TYPICAL APS PEDESTRIAN PUSH BUTTON LOCATION

THIS IS A GENERAL DETAIL INTENDED TO SHOW THE REQUIREMENTS OF APS PUSH BUTTON LOCATION. FOR PROJECT SPECIFIC INFORMATION REGARDING PEDESTRIAN RAMP LAYOUT AND PUSH BUTTON LOCATIONS, SEE THE PLAN.

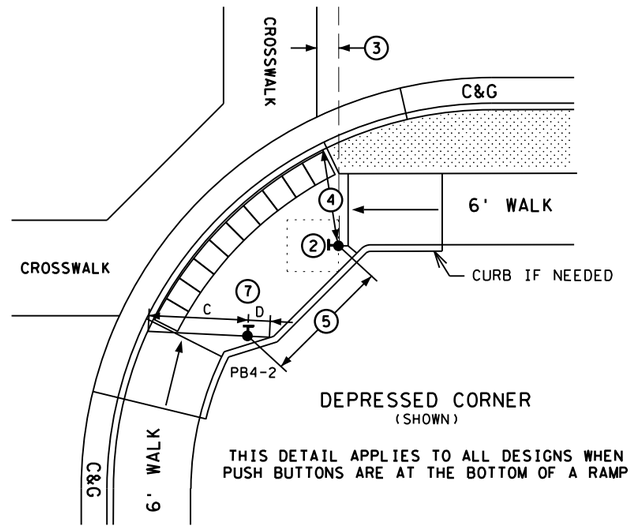
SUPPLEMENTAL GUIDANCE FOR CONSTRUCTING COMPLIANT APS PUSH BUTTONS:

1. THE FACE OF THE BUTTON SHALL BE PARALLEL WITH THE OUTSIDE EDGE OF CROSSWALK.
2. A MINIMUM 4 FT X 4 FT LANDING AREA SHALL BE PROVIDED ADJACENT TO EACH BUTTON, WITH A 2 PERCENT MAXIMUM SLOPE IN ALL DIRECTIONS.
3. BUTTONS SHALL BE WITHIN 5 FT OF THE OUTSIDE EDGE OF THE CROSSWALK.
4. BUTTONS SHALL BE BETWEEN 1.5 FT AND 10 FT FROM THE BACK OF CURB OR EDGE OF ROADWAY, MEASURED IN THE DIRECTION OF TRAVEL. STANDALONE PUSH BUTTON STATIONS SHOULD BE 4' MINIMUM FROM THE BACK OF CURB TO AVOID KNOCKDOWNS.
5. BUTTONS SHALL BE AT LEAST 10 FT APART.
6. PROVIDE A MAINTENANCE ACCESS ROUTE (MAR) WHEREVER POSSIBLE FOR SNOW REMOVAL PURPOSES. A MAR REQUIRES A 6 FT MINIMUM CLEAR DISTANCE BETWEEN A PUSH BUTTON AND ANY OBSTRUCTIONS, INCLUDING BUILDINGS, V-CURB, ELECTRICAL FOUNDATIONS, SIGNAL CABINETS, OR ANOTHER PUSH BUTTON.
7. BUTTON SHOULD BE 2 FT MINIMUM FROM RAMP GRADE BREAK AND BACK OF WALK.



TWIN PERPENDICULARS
(SHOWN)

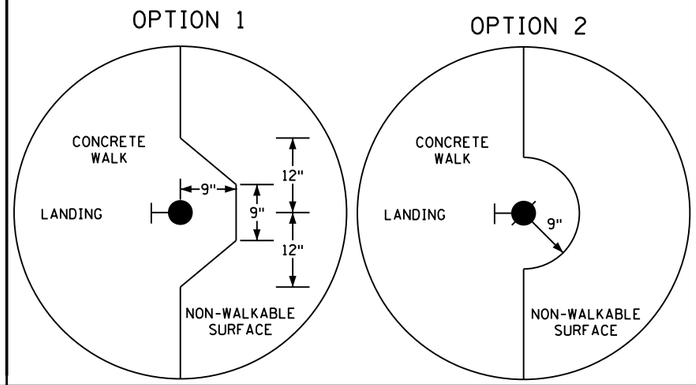
THIS DETAIL APPLIES TO ALL DESIGNS WHEN PUSH BUTTONS ARE AT THE TOP OF A RAMP



DEPRESSED CORNER
(SHOWN)

THIS DETAIL APPLIES TO ALL DESIGNS WHEN PUSH BUTTONS ARE AT THE BOTTOM OF A RAMP

CONTRACTOR MUST USE OPTION 1 OR 2 WHEN THE APS PUSH BUTTON IS SHOWN AT THE EDGE OF WALK. OPTION USED (OR SELECTED) MUST BE THE SAME THROUGHOUT THE ENTIRE PROJECT.



SIGNAL CONTROL POINTS			DISTANCE TO FRONT OF LANDING (FT)	DISTANCE TO BACK OF LANDING (FT)
SIGNAL NO.	X	Y		
PB2-1	-	-	A	B
PB4-2	-	-	C	D

A - DISTANCE MEASURED FROM THE PUSH BUTTON TO THE FRONT OF LANDING/TOP OF RAMP

B - CLEAR DISTANCE MEASURED FROM THE PUSH BUTTON TO THE BACK OF LANDING/EDGE OF WALK

C - CLEAR DISTANCE MEASURED FROM THE PUSH BUTTON TO THE OUTSIDE EDGE OF DOMES IN THE DIRECTION OF TRAVEL

D - CLEAR DISTANCE FROM THE PUSH BUTTON TO THE BACK OF LANDING MEASURED IN THE OPPOSITE DIRECTION OF TRAVEL

PEDESTRIAN PUSH BUTTON DETAIL

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
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CONDUCTOR COLOR CODE

FROM		TO DEVICE
SIGNAL SERVICE	1/C 6 EGC	AS SHOWN ON PLAN
SOP	3-1/C 2 — R, WH, BLK	SIGNAL SERVICE
SIGNAL SERVICE	3-1/C 6 — BLK, WH, G	SIGNAL CABINET
SIGNAL CABINET	(6SM) CABLE	SIGNAL CABINET

SIGNAL CABINET TO DEVICE

6PR 19			AS SHOWN ON PLAN
COAXIAL CABLE			AS SHOWN ON PLAN
4/C 18 CABLE	R, BLK, WH, G		AS SHOWN ON PLAN
2/C 14 CABLE	BLK, WH OR CLR		AS SHOWN ON PLAN
3/C 20 CABLE	R OR O, WH OR YEL, BLK OR BL		AS SHOWN ON PLAN
CAT 5			AS SHOWN ON PLAN

SIGNAL CABINET TO DEVICE

6/C 14 CABLE	R, O, BL, WH, BLK/R, BLK	RED/RLA, YEL/YLA, GRN/GLA, NEU, YLA/FYA, GLA	4 AND 5 SECTION SIGNAL HEADS
4/C 14 CABLE	R, BLK/R, BLK, WH	RED/DWK, YEL/WLK, GRN/SPR, NEU	3 SECTION HEAD PED HEADS
4/C 14 CABLE	R, BLK/R, BLK, WH	RED, YEL, GRN, NEU	5 SECTION (CLUSTER HEADS ONLY)
4/C 14 CABLE	R, BLK/R, BLK, WH	FYA, YLA, GLA, NEU	5 SECTION (CLUSTER HEADS ONLY)
3/C 14 CABLE	BLK, G, WH	EVP LIGHT/AWF LUMINAIRE VIDEO CAMERA ENFORCEMENT LIGHT	

NOTES:
ARRANGE AND TERMINATE CONDUCTORS AND CABLES AS SHOWN WITHOUT SPLICE.
NUMBER ONLY MEANS AWG CONDUCTOR SIZE (e.g. 14=14AWG)
1/C MEANS AN INDIVIDUAL CONDUCTOR NOT PART OF A CABLE ASSEMBLY

CABLE LABELING ABBREVIATIONS

ABBREVIATION	LABEL REFERENCE DSISCRIPTION & EXAMPLE	COMPONENT
X-Y	INDICATION NUMBER 2-1	SIGNAL HEAD
X-Y	LOOP NUMBER D2-1	DETECTOR
X-Y	PUSH BUTTON NUMBER PB2-1	PUSH BUTTON
X-Y	PED INDICATION NUMBER P2-1	PED INDICATION
X-Y	LUMINAIRE NUMBER L1	LUMINAIRE
X-Y	EVP PHASE NUMBER EVP 2+5	EVP DETECTOR
X-Y	EVP LIGHT PHASE NUMBER EVPL 2+5	EVP CON. LIGHT
X-Y	VIDEO DETECTION PHASE V2-1	VIDEO DETECTION
X-Y	RADAR DETECTION PHASE RD2-1	RADAR DETECTION
SS	SIGNAL SERVICE	SERVICE WIRE
CC	CABINET COMMS	COMMS CABLE
FO	FIBER OPTIC	FIBER CABLE
SPARE Y	SPARE WIRE TO POLE NUMB. SPARE1	SPARE WIRE
ELYZ *	ENFORC. LIGHT POLE & DIRECTION	ENFORCEMENT LIGHT
PTZ1	PTZ CAMERA POLE NUMBER PTZ1	PTZ CAMERA
IC	INTERCONNECT CABLE	INTERCONNECT
EGC	EQUIPMENT GROUNDING CONDUCTOR	GROUND

X = SIGNAL SYSTEM PHASE NUMBER; REFER TO THE PLAN
Y = SIGNAL SYSTEM ASSIGNED COMPONENT NUMBER; REFER TO THE PLAN
Z * = DIRECTION
FURNISH AND INSTALL LABELS ON CABLES WITH ABBREVIATIONS SHOWN ON THIS TABLE AND IN ACCORDANCE WITH THE WIRING DIAGRAM.

WIRE COLOR CODE KEY

R	Red
O	Orange
BL	Blue
WH	White
BLK	Black
BRN	Brown
CL	Clear
G	Green
R/BLK	Red with Black Stripe
O/BLK	Orange with Black Stripe
BL/BLK	Blue with Black Stripe
WH/BLK	White with Black Stripe
WH/R	White with Red Stripe
BLK/WH	Black with White Stripe
BLK/R	Black with Red Stripe

CONDUCTOR AND CABLE SPECIFICATION CHART

NUMBER OF CONDUCTORS & AWG SIZE	TYPE	Specification Number
1/C 2	INDIVIDUAL SERVICE CONDUCTORS	3815.2B.1
1/C 6	FEEDER AND BRANCH CONDUCTORS	3815.2B.1
1/C 6 INS.GR.	Grounding Conductors	3815.2B.5
2/C 14	Loop Detector Lead-In Cable	3815.2C.4
3/C 14	Signal Control Cable	3815.2C.3
4/C 14	Signal Control Cable	3815.2C.3
6/C 14	Signal Control Cable	3815.2C.3
12/C 14	Signal Control Cable	3815.2C.3
6PR 19	Telephone Cables Outdoor	3815.2C.6.b
3/C 20	EVP Detector Cable	3815.2C.5

WIRE COLOR CODE DETAIL

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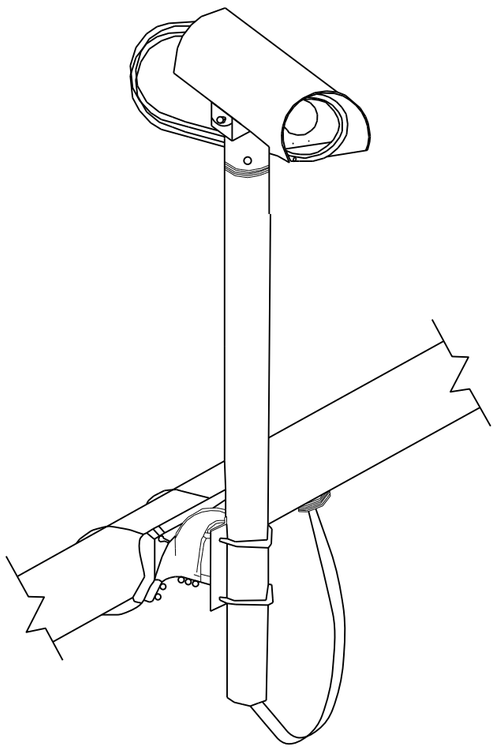
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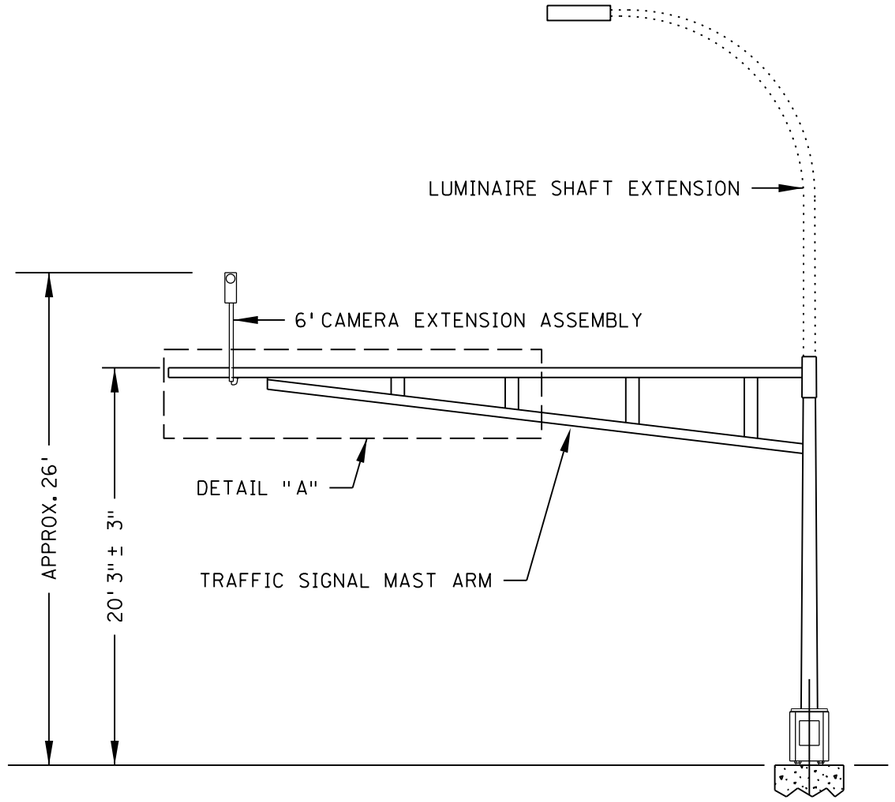
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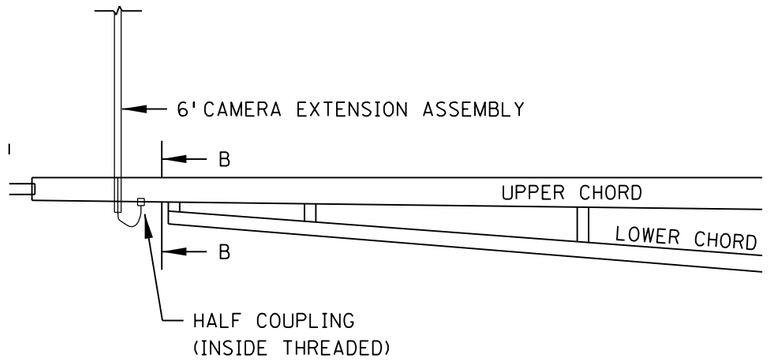
TYPICAL MAST ARM CAMERA MOUNTING DETAILS

MAST ARM CAMERA INSTALLATION

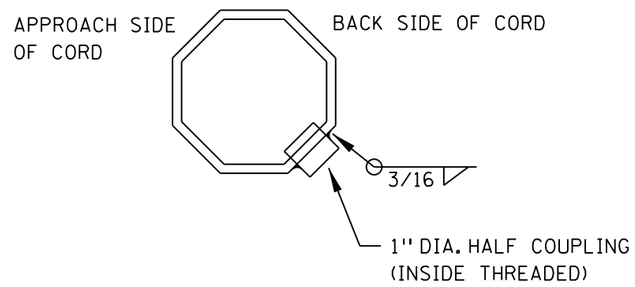




DETAIL "A" (MAST ARM)



SECTION B-B (UPPER CHORD)



NOTES:

1) F & I MAST ARMS WITH MANUFACTURER WELDED 1" HALF COUPLINGS AS SHOWN ON THE PLAN.

2) IF POSSIBLE RUN CONTINUOUS WITHOUT SPLICE VIDEO DETECTION CABLES BETWEEN THE SIGNAL CONTROL CABINET AND THE CAMERA. WHEN SPLICING IS NECESSARY F & I SPLICES APPROVED BY THE VIDEO DETECTION MANUFACTURER IN THE POLE TRANSFORMER BASES AND AT THE CAMERAS.

3) RUN CABLES INSIDE THE POLES, MAST ARMS AND CAMERA MOUNTING EXTENSIONS.

4) F & I CORD GRIPS INTO THE 1" HALF COUPLINGS WHERE THE CABLES ARE ROUTED THROUGH.

5) INSTALL STATE & COUNTY FURNISHED ALUMINUM TUBE CAMERA MOUNTING EXTENSIONS, ALUMINUM MOUNTING BRACKETS, AND STAINLESS STEEL STRAPS AND HARDWARE TO THE MAST ARM AS SHOWN ON THE PLAN. REVERSE THE MOUNTING BRACKET WHEN IN CONFLICT WITH THE MAST ARM SIGNING DETAIL.

6) CAMERA DETECTION EQUIPMENT INCLUDING, CAMERA, CAMERA EXTENSION, AND MOUNTING BRACKET WILL BE FURNISHED BY THE STATE TO BE INSTALLED BY THE CONTRACTOR. SEE SPECIAL PROVISIONS.

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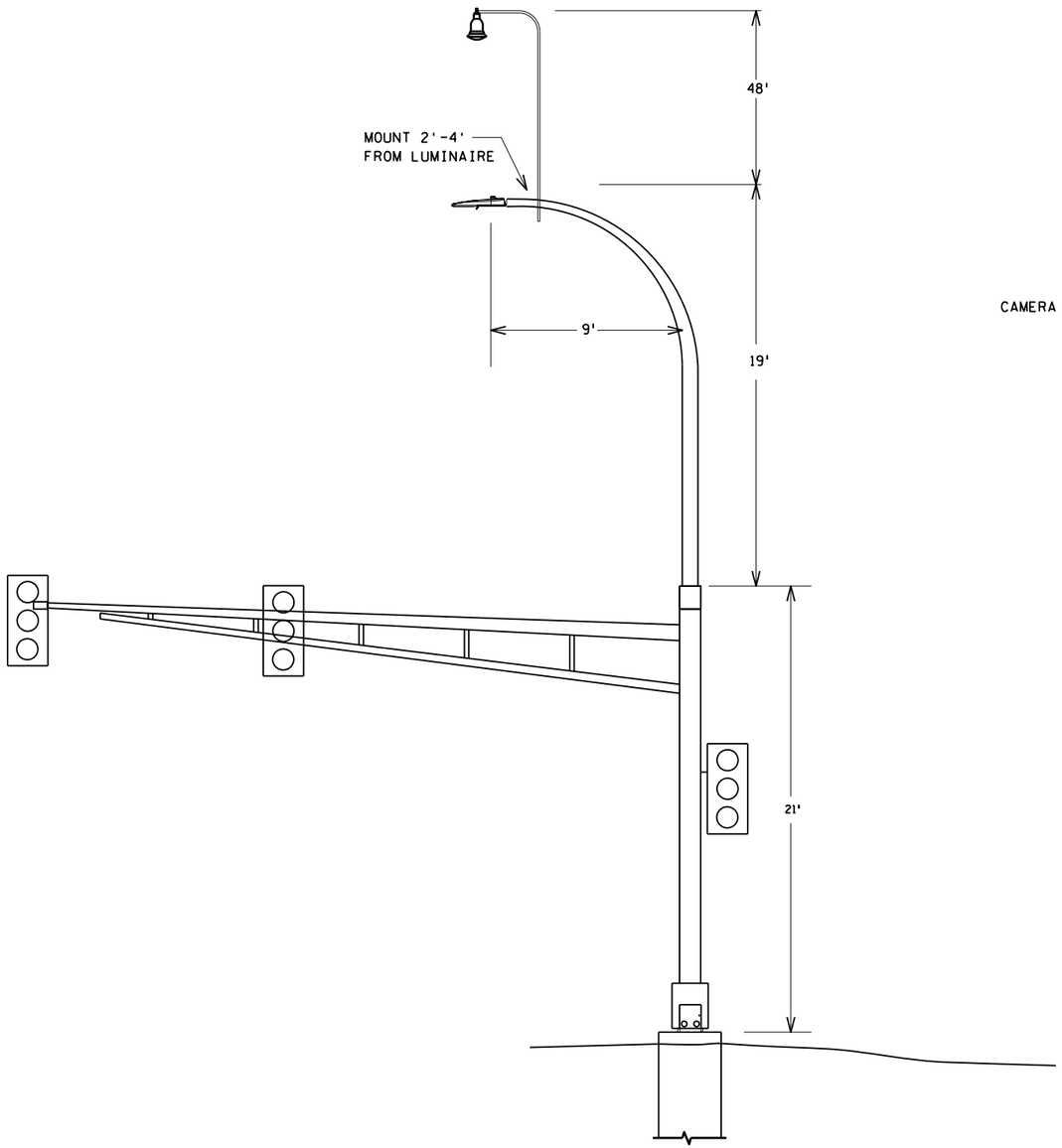
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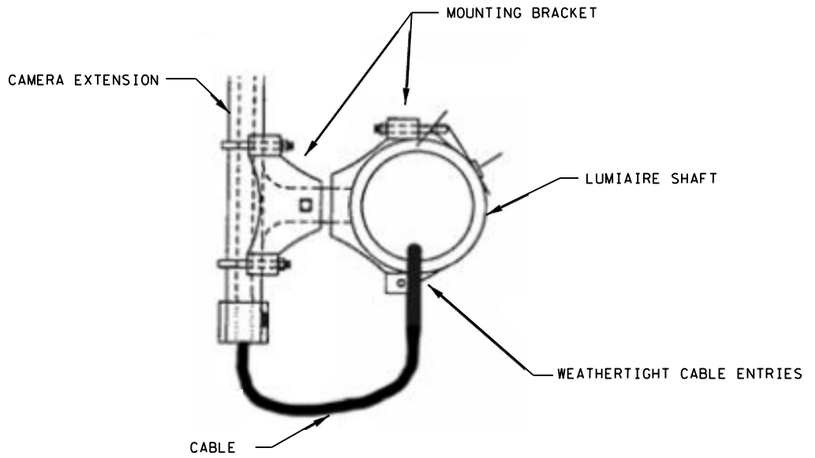
MAST ARM VIDEO DETECTION DETAIL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

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TYPICAL LUMINAIRE FISHEYE/BELL CAMERA MOUNTING DETAIL





TYPICAL WIRING OF LUMINAIRE SHAFT MOUNTED FISHEYE/BELL CAMERA AND MOUNTING BRACKET

NOTES:

1. CAMERA DETECTION EQUIPMENT INCLUDING, CAMERA, CAMERA EXTENSION, MOUNTING BRACKET, AND CABLE WILL BE FURNISHED BY THE STATE TO BE INSTALLED BY THE CONTRACTOR.
2. THE CABLE (CAT 5E) BETWEEN THE CAMERA AND THE TRAFFIC SIGNAL CONTROL CABINET (FURNISHED BY THE STATE) SHALL BE CONTINUOUS. THE CAT 5E CABLE WILL BE TERMINATED BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL INSTALL THE CAMERA PER MANUFACTURER INSTRUCTIONS. THE CAMERA SHALL BE ADJUSTED AND LEVELED TO THE SATISFACTION OF MnDOT TRAFFIC OFFICE PERSONNEL.

FISHEYE VIDEO DETECTION DETAIL

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

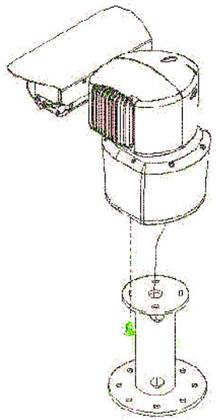
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 299 OF 359

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Tom Dietz 3/18/2022
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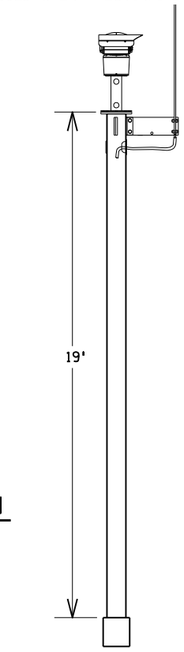
ISOMETRIC VIEW- CAMERA & MOUNT

(STATE FURNISHED)



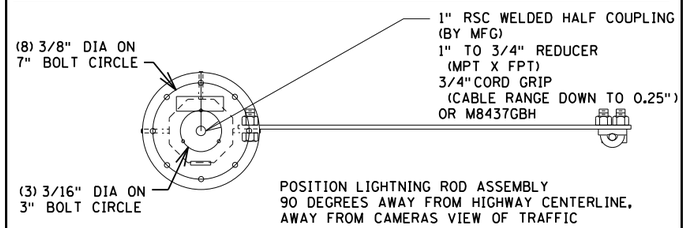
X-400 CAMERA EXTENSION

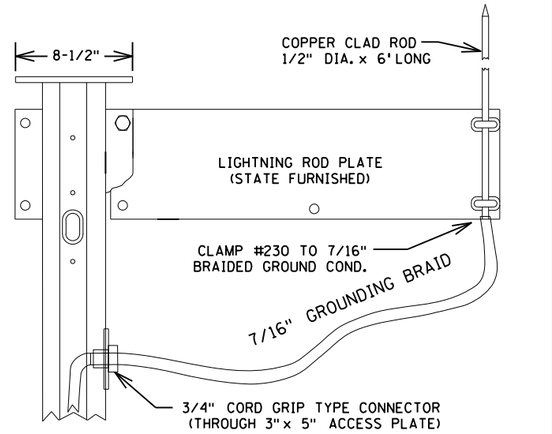
(USED WHEN A LUMINAIRE IS NOT REQUIRED)



X6-350/CAM 400 EXTENSION

EXTENSION TOP & LIGHTNING PROTECTION DETAIL



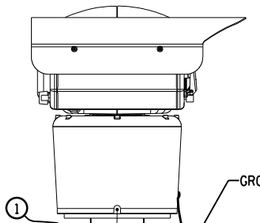


NOTES:

1) FURNISH & INSTALL 7/16" TINNED BRAIDED GROUND CONDUCTOR INSIDE MAST ARM POLE AND THROUGH INPLACE CONDUIT TO CLOSEST HANDHOLE (SEE LAYOUT).
2) CONTRACTOR SHALL CLAMP #230 7/16" BRAIDED GROUND WIRE TO GROUND ROD IN HANDHOLE.
3) NO SPLICES ALLOWED IN 7/16" TINNED BRAIDED GROUND WIRE.
4) CONTRACTOR SHALL CUT A 3/4 INCH KNOCK OUT HOLE IN THE INSPECTION PLATE NEAR THE CAMERA AND PLACE A 3/4 INCH CORD GRIP TYPE FITTING TO RUN THE 7/16 INCH TINNED BRAIDED GROUND CONDUCTOR INTO THE POLE.

CAMERA & MOUNT AT TOP OF EXTENSION

IP CAMERA
(STATE FURNISHED)



- F&I CAT 5E (600V RATED) (WITH THE PROPER TERMINATIONS) FROM THE TOP OF THE POLE TO THE SIGNAL CABINET. (NOT TO EXCEED 250' LENGTH)
- F&I 7/16" TINNED BRAIDED GROUND CONDUCTOR (32 STRAND 17 GAUGE COPPER) FROM LIGHTNING ROD TO THE GROUND ROD IN HANDHOLE

REQUIRED CABLE TERMINATION:
COM CABLE- CAT 5E (600V RATED)
SHIELDED -RJ-45 (T-568B)

PROPOSED SIGNAL
CONTROL CABINET
(STATE FURNISHED
OR INPLACE)

F/I CAT 5E (300V RATED) (TO
CAMERA AT THE TOP OF THE POLE)

STATE FURNISHED & INSTALLED:
CAMERA POWER OVER
ETHERNET (POE) INJECTOR
PATCH CORDS
SIGNAL CONTROLLER
MMU
ETHERNET SWITCH

7/16" BRAIDED GROUND CONDUCTOR
(32 STRAND 17 GAUGE COPPER)

HANDHOLE
(SEE LAYOUT)

CLAMP #230
(SEE APL TMS/ITS GROUNDING)

5/8"X 15'
GROUND ROD

CONDUITS
(SEE LAYOUT)

HANDHOLE

CONDUIT W/6-SM F/O

CORE DRILL FOR CONDUIT
WHERE REQUIRED

LUMINAIRE/CAMERA EXTENSION DETAIL

1. THE CAMERA IS SUPPLIED WITH 20" CABLE PIGTAIL. IT IS TERMINATED WITH A RJ45 PLUG AS INDICATED ON THE IP CAMERA CONNECTOR DETAIL SHEET.
2. F&I ETHERNET CABLE IN ACCORDANCE WITH 3815.2C.6.d (CAT 5E -300V RATED), BETWEEN THE SIGNAL CONTROL CABINET AND THE TOP OF THE POLE. TERMINATE THE END OF THE CABLE WITH UNSHIELDED RJ-45 (T-568B) CONNECTORS. ALL FIELD TERMINATIONS/CONNECTORS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER USING THE SPECIFIED INSTALLATION TOOL(S).

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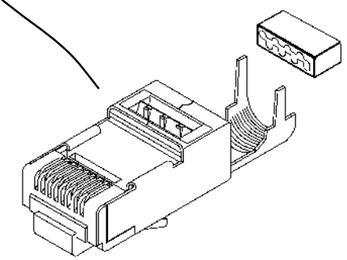
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SHEET 300 OF 359

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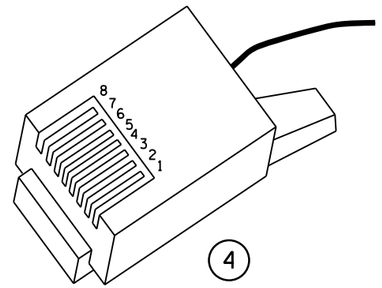
② CAT 5E (600V RATED) CABLE TERMINATION

F&I RJ45 CABLE TERMINATION - FOR HIGH SPEED APPLICATION.
CAT 6 UNSHIELDED MODULAR PLUG, RJ45 (8 CONDUCTOR), GOLD PLATED CONTACTS, ACCEPTS CABLES WITH DIAMETERS UP TO 0.310 INCHES.
MEETS CATERGORY 6 ANSI/EIA 568-C.2

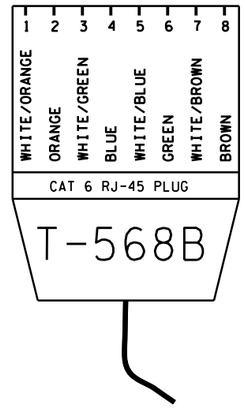


③ CAT 5E (600V RATED)

F&I ETHERNET CABLE CAT 5E IN ACCORDANCE WITH 3815.2C.6d."ETHERNET CABLE (OUTSIDE PLANT)"
L-COM PART NO. TFDL5089 MEETS THE REQUIREMENTS.
QUABBIN PART NO. 5089 MEETS THE REQUIREMENTS.

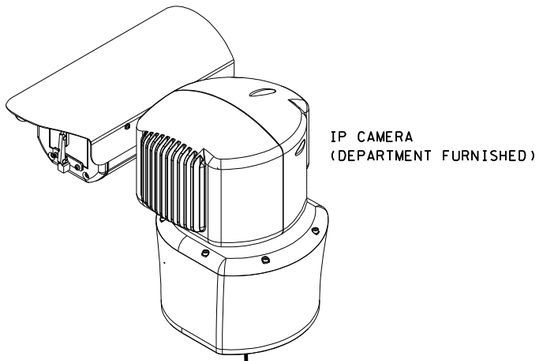


④

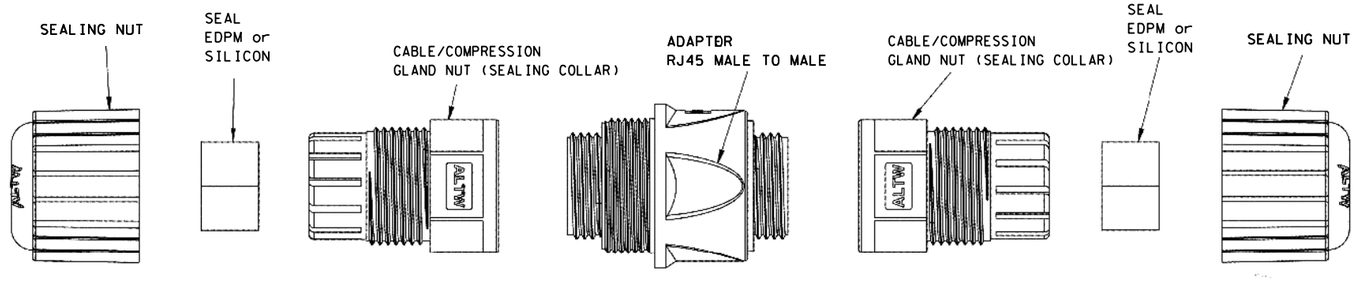


① WATERPROOF SHIELDED RJ-45 (MALE TO MALE) INLINE COUPLER/ADAPTER

IP67
COPPER ALLOY CONTACT MATERIAL
GOLD CONTACT PLATING
NYLON HOUSING
AMPHENOL PART NO. RDP-00BFFA-SLM7001 &
VPI PART NO. CAT5E-WTP-FF MEETS REQUIREMENTS



IP CAMERA
(DEPARTMENT FURNISHED)



FACTORY INSTALLED 20" PIGTAIL
WITH CONNECTOR (RJ-45 PLUG)

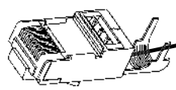
ETHERNET CABLE 4/PR

RJ-45 PLUG (T-568B)
(SUPPLIED WITH CAMERA)

①



②



③ INSTALL BETWEEN THE SIGNAL CONTROL CABINET AND THE TOP OF THE SIGNAL POLE. TERMINATE THE ENDS OF THE CABLE WITH RJ-45 (T-568B) CONNECTORS. INSTALL FIELD TERMINATIONS/CONNECTORS AS RECOMMENDED BY THE MANUFACTURER, AND USE THE SPECIFIED INSTALLATION TOOL(S).

④ F&I SHIELDED RJ45 CABLE TERMINATION (CONNECTOR)



CONNECTOR LOCATED IN THE SIGNAL CABINET

CONNECTORS LOCATED AT THE TOP OF THE SIGNAL POLE (IN CAMERA MOUNT)

PTZ CAMERA CONNECTION DETAIL

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SIGNAL PLAN

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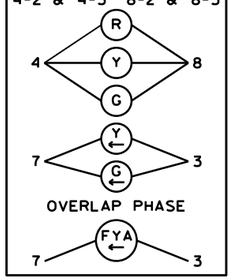
SIGNAL HEAD CHART

FACE	R	Y	FYA	G	Y	G	
1-1, 1-2	←	←	←	←			F&I
2-1	○	○		○			
2-2	●	●		●			REMOVE, F&I
4-1	○	○		○			
4-2, 4-3	○	○		○			REMOVE
4-2, 4-3	●	●	←	●	←	←	F&I
5-1, 5-2	←	←	←	←			F&I
6-1	○	○		○			
6-2	●	●		●			REMOVE, F&I
6-3	○	○		○			REMOVE
8-1	●	●		●			REMOVE, F&I
8-2, 8-3	○	○		○			REMOVE
8-2, 8-3	●	●	←	●	←	←	F&I

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW

SIGNAL HEAD PHASING

HEADS 4-2 & 4-3 HEADS 8-2 & 8-3

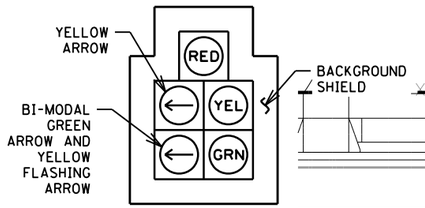


VIDEO DETECTION CHART

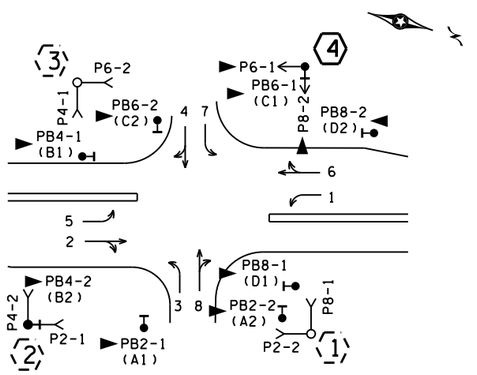
	VIDEO CAMERA	LOCATION	PHASE
REMOVE	V-1	POLE 1	2 & 5
REMOVE	V-2	POLE 2	4
REMOVE	V-3	POLE 3	1 & 6
REMOVE	V-4	POLE 4	8
INSTALL	V-1	LUM 1	ALL

SIGNAL SYSTEM REVISIONS:
- ► 1. REVISED ITEMS INDICATED IN BOLD AND BY "►".
- ► 2. REMOVE EXISTING PUSH BUTTONS, PUSH BUTTON STATIONS, AND ASSOCIATED CONDUIT AND CABLES.
- ► 3. REMOVE EXISTING WIRING UNLESS OTHERWISE NOTED.
- ► 4. REMOVE EXISTING POLE 4 AND ALL ASSOCIATED EQUIPMENT, INCLUDING CONDUIT, CABLES AND FOUNDATIONS.
- ► 5. REMOVE EXISTING VIDEO DETECTION SYSTEM, RADIO INTERCONNECT, HPS LUMINAIRES, AND MAST ARM SIGNS.
- ► 6. F&I POLE 4, PUSH BUTTON STATIONS AND ASSOCIATED EQUIPMENT AS NOTED IN THE PLANS.
- ► 7. F&I WIRING AS NOTED IN THE PLANS.
- ► 8. ADJUST HANDHOLES IMPACTED BY ADA IMPROVEMENTS.
- ► 9. PAINT SIGNAL SYSTEM AS SPECIFIED IN SPECIAL PROVISIONS.
- ► 10. ITEMS ARE EXISTING UNLESS OTHERWISE NOTED.

5 SECTION FYA CLUSTER HEAD DETAIL



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5 & 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

NOTES:
- ►1. SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
- ►2. REFER TO "EXISTING SIGNAL PLAN" SHEETS FOR INPLACE SIGNAL COMPONENTS.
- ►3. ENSURE THE EXACT LOCATION OF POLES AND PEDESTRIAN PUSH BUTTON STATIONS ARE VERIFIED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
- ►4. PAVEMENT MARKINGS ARE INCLUDED AS PART OF STRIPING PLANS.
- ►5. FOR TYPE D SIGNS, SEE DETAIL SHEET. ALL SIGNS REQUIRED ARE INCIDENTAL.
- ►6. CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE INCLUDED AS PART OF THE ROADWAY PLAN. SEE THE INTERSECTION DETAILS, INCLUDED WITH THE ROADWAY PLAN, FOR INFORMATION.
- ►7. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD.
- ►8. USE PVC OR HDPE FOR ALL NEW CONDUIT.
- ►9. CONDUIT SIZED ARE NOMINAL DIAMETER.
- ►10. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).

T.H. 41 (CHESTNUT ST) AT 2ND ST
REVISE SIGNAL SYSTEM A - LAYOUT

SYSTEM ID: 1736763 (OLD ID: 39130)
T.E.: 49110
SCALE 0 20 40 FEET
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► DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

(3) PA90 POLE FOUNDATION
TYPE PA90-A-35-D40-9 (DAVIT AT 350 DEG)
1-PAIR SWING AWAY HINGES
REMOVE ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 9'**
F&I ► **1-5' MAST ARM EXTENSION**
F&I ► **1-ANGLE MOUNT SIGNAL OVERHEAD ON MAST ARM EXTENSION**
F&I ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD ON STAP ON HUB AT 4'**
F&I ► **1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR AT 90**
REMOVE ► 1/2-ANGLE MOUNT SIGNALS POLE MOUNTED AT ~~90~~ AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
ADJUST ► 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 1+6)
REMOVE ► **1-VIDEO DETECTION CAMERA AND MOUNT**
REMOVE ► **LUMINAIRE 250W HPS**
F&I ► **LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)** (2)
F&I ► **1-R10-X12 SIGN ADJACENT TO HEAD (1-1)**
REMOVE ► **1-TYPE D SIGN**
F&I ► **1-SIGN (SECOND ST) (SEE SIGN DETAILS)**

3" CONDUIT TO HH 4
F&I ► **2-6/C 14**
6-4/C 14
1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.

(4) **X: 543140.92**
Y: 153134.06
PA85 POLE FOUNDATION
TYPE PA85-A-15
1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 8+3)
F&I ► **1-APS PB AND SIGN (LT ARROW)(PB6-1) AND APS POLE MOUNT ADAPTOR**
1-R10-X12 SIGN ADJACENT TO HEAD (8-2)
1-SIGN (MN41 DBL) (SEE SIGN DETAILS)

3" CONDUIT TO HH 5:
2-6/C 14
5-4/C 14
1-3/C 14 (EVP)
1-3/C 20 (EVP)
1-2/C 14
1-1/C 6 INS. GR.

(A) EQUIPMENT PAD
SERVICE CABINET
CONTROLLER AND CABINET

CONTROLLER CABINET TO HH2
4" CONDUIT
F&I ► **4-6/C 14**
11-4/C 14
2-3/C 14 (EVP)
2-3/C 20 (EVP)
4-2/C 14
1-CAT 5E TRA MGMT CAM
1-1/C 6 INS. GR.

CONTROLLER CABINET TO HH6
4" CONDUIT
F&I ► **4-6/C 14**
11-4/C 14
2-3/C 14 (EVP)
2-3/C 20 (EVP)
4-2/C 14
1-CAT 5E VIDEO DET
1-1/C 6 INS. GR.

CONTROLLER CABINET
3" CONDUIT STUBBED OUT
(CAPPED BOTH ENDS)

CONTROLLER CABINET
3/4" CONDUIT STUBBED OUT
(CAPPED FOR TELEPHONE LINE)

CONTROLLER
2" CONDUIT STUBBED OUT
(CAPPED BOTH ENDS)

SERVICE CABINET TO HH1:
2" CONDUIT
F&I ► **2-3/C 14 (LUM)**

CONTROLLER CABINET TO SERVICE CABINET
2" CONDUIT
3-1/C 6
1-1/C 6 INS. GR.
F&I ► **1-1/2" CONDUIT TO TMS VAULT:**
BY OTHERS, SEE TMS PLAN ► **1-FO PIGTAIL (6-SM)**

(B) INPLACE SOURCE OF POWER (SOP)
CHASKA ELECTRIC UTILITY
HH1 TO SERVICE CABINET
2" CONDUIT
3-1/C 2

(2) PA85 POLE FOUNDATION
TYPE PA85-A-25
F&I ► **X-400 CAM EXTENSION**
(INCLUDES LIGHTNING ROD, 7/16" GROUND BRAID, AND GROUND ROD)
INSTALL ► **1-TRAFFIC MANAGEMENT CAMERA (STATE FURNISHED) WITH MOUNT**
REMOVE ► **1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'**
F&I ► **1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR OVERHEAD AT 0'**
F&I ► **1-ANGLE MOUNT SIGNAL POLE MOUNTED AT 90 DEG**
REMOVE ► 1/2-ANGLE MOUNT SIGNALS POLE MOUNTED AT ~~90~~ AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
ADJUST ► 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 4+7)
REMOVE ► **1-VIDEO DETECTION CAMERA AND MOUNT**
F&I ► **1-APS PB AND SIGN (RT ARROW)(PB4-2) AND APS POLE MOUNT ADAPTOR**
F&I ► **1-R10-X12 SIGN ADJACENT TO HEAD (4-2)**
REMOVE ► **1-TYPE D SIGN**
F&I ► **2-SIGNS (MN41 DBL)(CHESTNUT ST) (SEE SIGN DETAILS)**

3" CONDUIT TO HH 3
F&I ► **2-6/C 14**
5-4/C 14
1-3/C 14 (EVP)
1-3/C 20 (EVP)
1-2/C 14
1-1/C 6 INS. GR.
1-CAT 5E TRA MGMT CAM
1-7/16" GROUNDING BRAID TO GROUND ROD IN HH 3

(1) PA90 POLE FOUNDATION
TYPE PA90-A-35-D40-9 (DAVIT AT 350 DEG)
1-PAIR SWING AWAY HINGES
REMOVE ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 2'**
F&I ► **1-5' MAST ARM EXTENSION**
F&I ► **1-ANGLE MOUNT SIGNAL OVERHEAD ON MAST ARM EXTENSION**
F&I ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD ON STRAP ON HUB AT 5'**
F&I ► **1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR AT 90**
REMOVE ► 1/2-ANGLE MOUNT SIGNALS POLE MOUNTED AT ~~90~~ AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
ADJUST ► 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 2+5)
REMOVE ► **1-VIDEO DETECTION CAMERA AND MOUNT**
INSTALL ► **1-GRIDSMART VIDEO DETECTION CAMERA (V-1) (STATE FURNISHED) MOUNTED ON LUMINAIRE**
REMOVE ► **LUMINAIRE 250W HPS** (1)
F&I ► **LUMINAIRE-LED (FOR 35' MOUNTING HEIGHT)**
F&I ► **1-R10-X12 SIGN ADJACENT TO HEAD (5-1)**
REMOVE ► **1-TYPE D SIGN**
F&I ► **1-SIGN (SECOND ST) (SEE SIGN DETAILS)**

3" CONDUIT TO HH 6
F&I ► **2-6/C 14**
6-4/C 14
1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 20 (EVP)
1-CAT 5E VIDEO DET
1-1/C 6 INS. GR.

T.H. 41 (CHESTNUT ST) AT 2ND ST
REVISE SIGNAL SYSTEM A - POLE NOTES

SYSTEM ID: 1736763 (OLD ID: 39130)
T.E.: 49110
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BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
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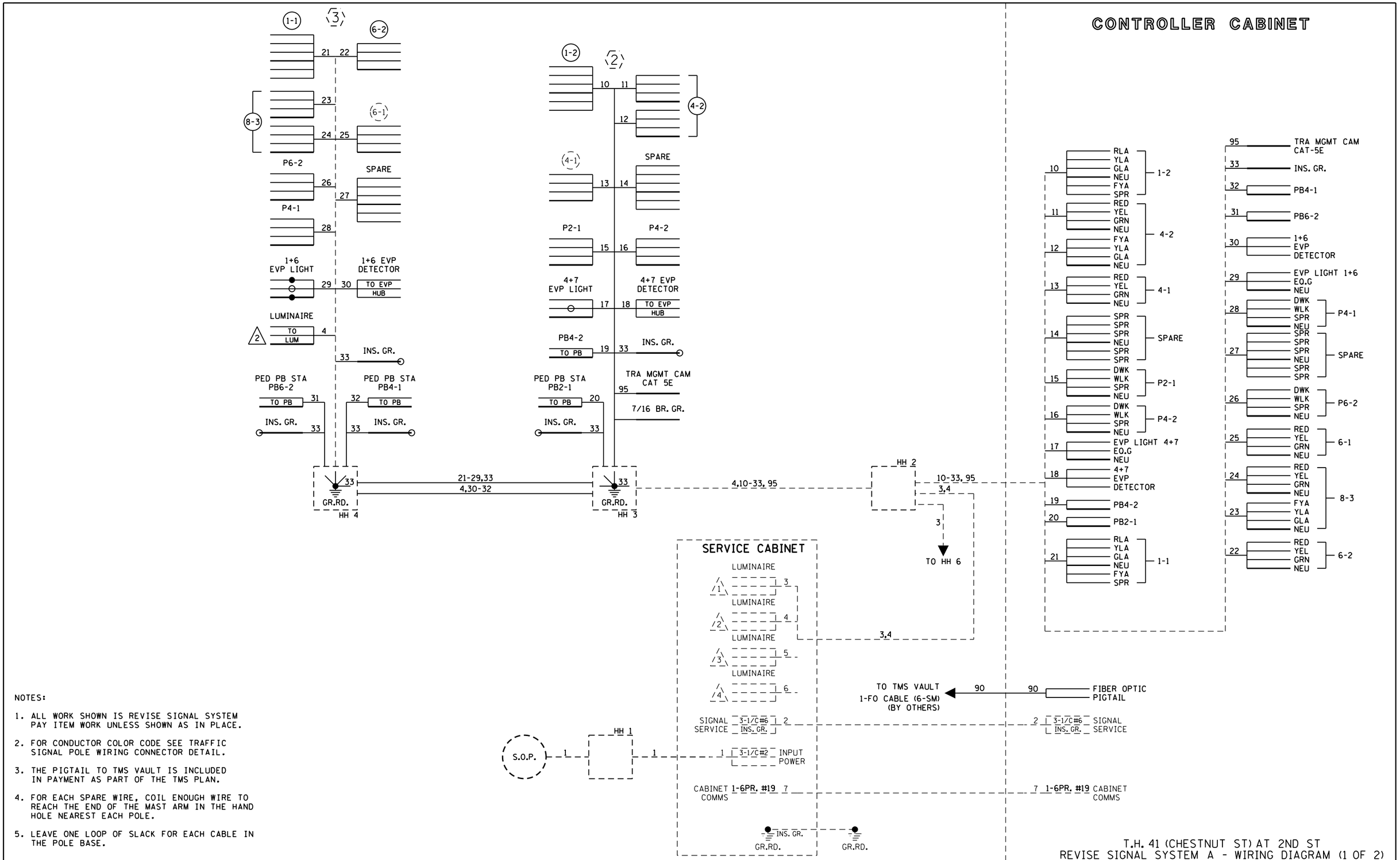
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED ABM
DRAWN ABM
CHECKED MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 303 OF 359

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NOTES:

1. ALL WORK SHOWN IS REVISE SIGNAL SYSTEM PAY ITEM WORK UNLESS SHOWN AS IN PLACE.
2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
3. THE PIGTAIL TO TMS VAULT IS INCLUDED IN PAYMENT AS PART OF THE TMS PLAN.
4. FOR EACH SPARE WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HAND HOLE NEAREST EACH POLE.
5. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

T.H. 41 (CHESTNUT ST) AT 2ND ST
REVISE SIGNAL SYSTEM A - WIRING DIAGRAM (1 OF 2)

SYSTEM ID: 1736763 (OLD ID: 39130)
T.E.: 49110

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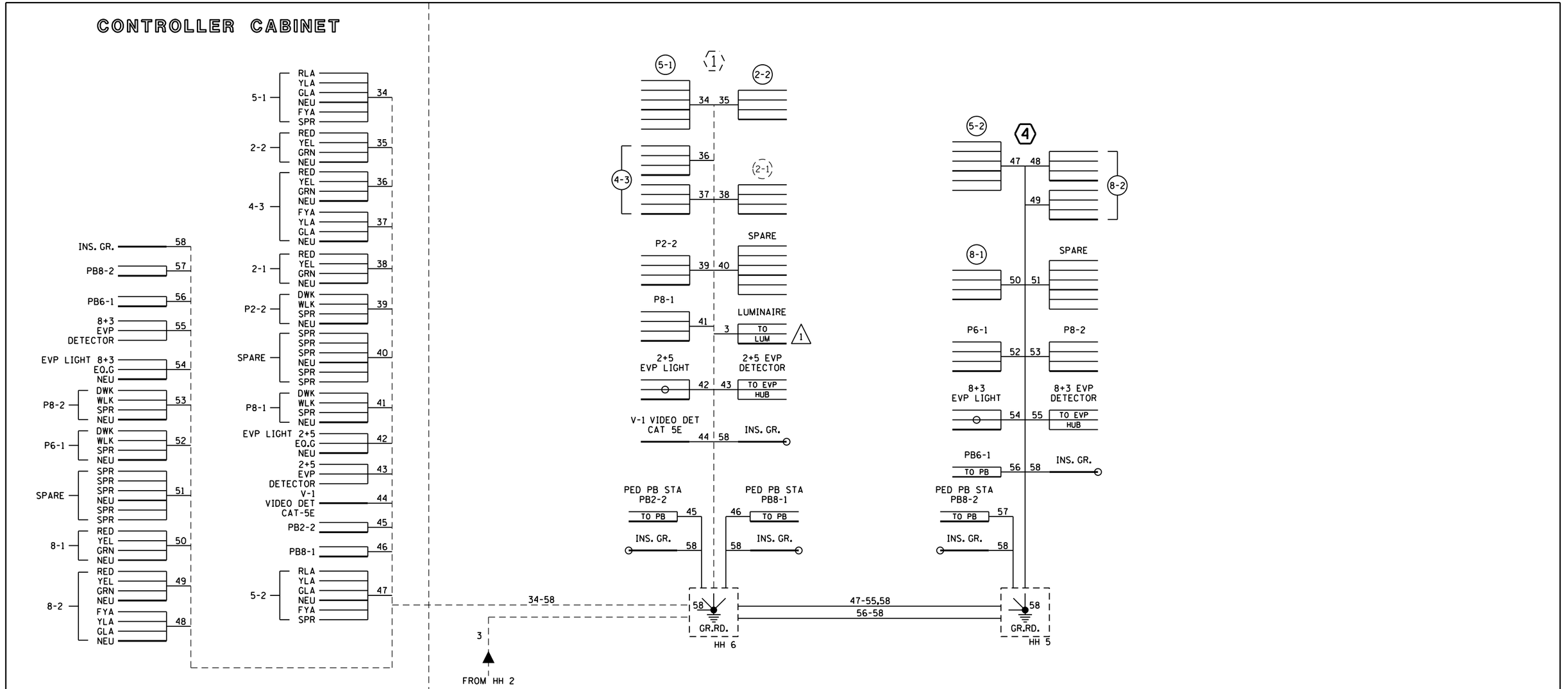
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 304 OF 359

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NOTES:

1. ALL WORK SHOWN IS REVISE SIGNAL SYSTEM PAY ITEM WORK UNLESS SHOWN AS IN PLACE.
2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
3. THE PIGTAIL TO TMS VAULT IS INCLUDED IN PAYMENT AS PART OF THE TMS PLAN.
4. FOR EACH SPARE WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HAND HOLE NEAREST EACH POLE.
5. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

T.H. 41 (CHESTNUT ST) AT 2ND ST
REVISE SIGNAL SYSTEM A - WIRING DIAGRAM (2 OF 2)

SYSTEM ID: 1736763 (OLD ID: 39130)
T.E.: 49110

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

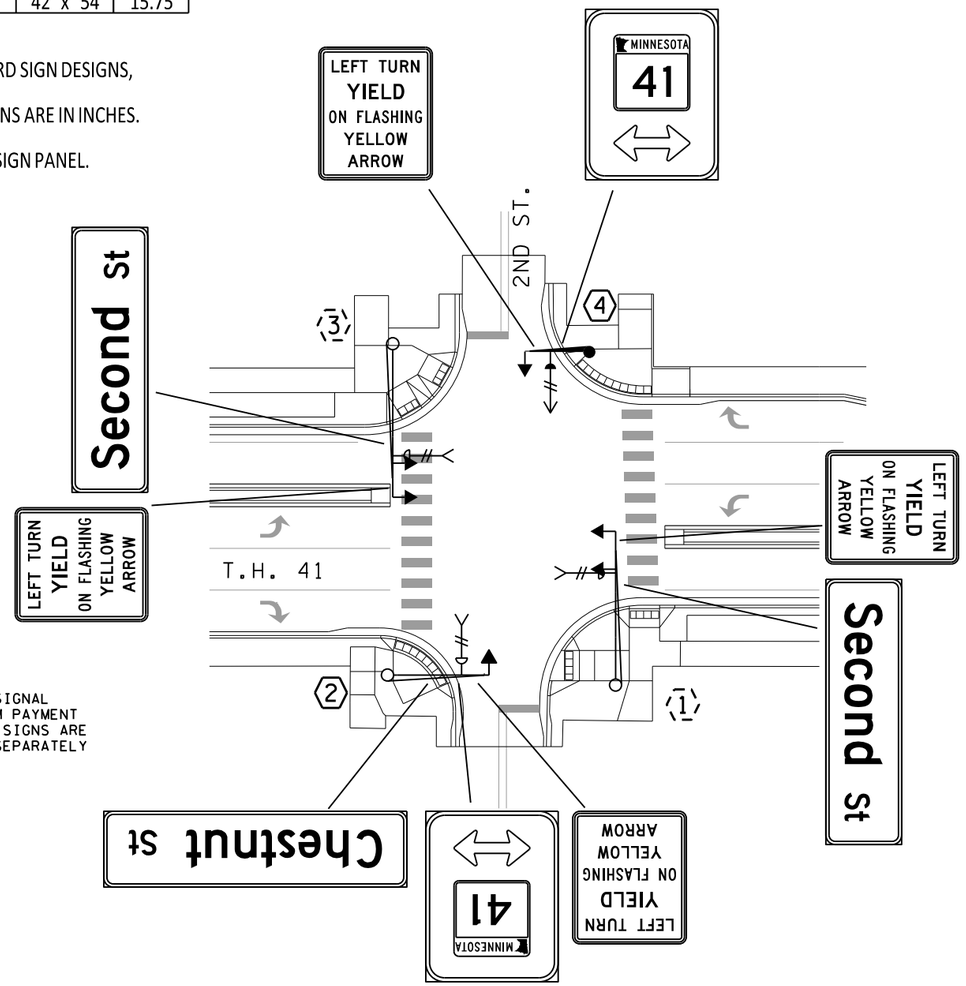
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SIGN PANELS ON SIGNALS

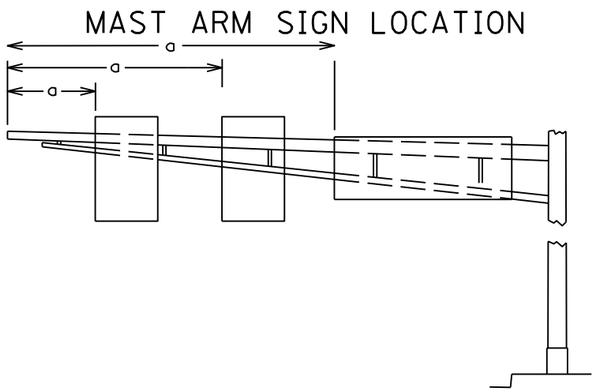
POLE NUMBER	"A" DISTANCE (FEET) OR POLE	PANEL				
		QTY	CODE NUMBER	LEGEND	SIZE (INCHES)	AREA (SQ FT)
1,2,3,4	0	4	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	36 x 42	10.50
1	12	1		SECOND ST	84 x 24	14.00
2	7	1		MN41 DBL	42 x 54	15.75
2	13	1		CHESTNUT ST	96 x 24	16.00
3	12	1		SECOND ST	84 x 24	14.00
4	7	1		MN41 DBL	42 x 54	15.75

GENERAL NOTE(S):
1. SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, ARROW DETAILS AND SPLICE PLATE DETAILS.
2. FOR NON STANDARD SIGN DESIGNS, LAYOUTS ARE INCLUDED. SIGN PANEL DIMENSIONS ARE IN INCHES.
3. SEE STANDARD PLAN 5-297.731 FOR SIGN MOUNTING TO MAST ARM.
4. "A" DISTANCE = DISTANCE FROM THE END OF THE MAST ARM TO THE EDGE OF EACH SIGN PANEL.



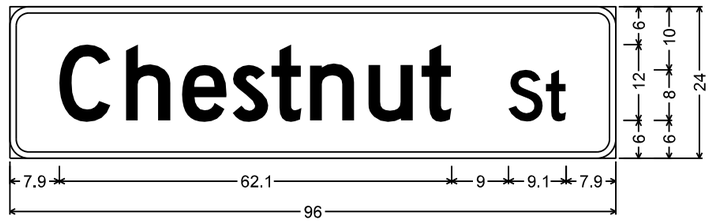
NOTES:
1. ALL SIGN DIMENSIONS ARE IN INCHES.
2. THE SIGNS ON THIS DETAIL SHEET ARE SIGNS THAT ARE MOUNTED ON THE SIGNAL MAST ARM OR SIGNAL POLES. THESE SIGNS ARE INCLUDED IN THE LUMP SUM PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM. ADDITIONAL GROUND MOUNTED SIGNS ARE REQUIRED AND ARE INCLUDED WITH THE SIGNING PLAN AND ARE PAID FOR SEPARATELY AS INDICATED WITH THE SIGNING PLAN.

MAST ARM SIGN LOCATION

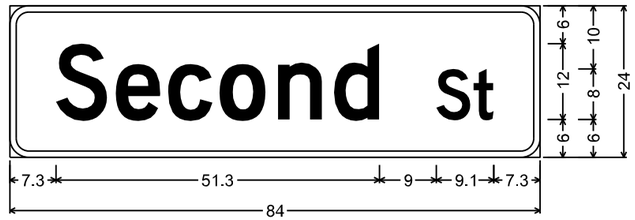




6.0" Radius, 1.3" Border, White on Green;
State Highway 41 M1-5M;
Double Headed Arrow 5 - 24.0" 0°;



Chestnut St;
3.0" Radius, 1.0" Border, White on Green;
"Chestnut St", D 2K;



2nd Street;
3.0" Radius, 1.0" Border, White on Green;
"Second St", D 2K;

T.H. 41 AT 2ND ST.
REVISE SIGNAL SYSTEM A - MAST ARM SIGN DETAILS

BOLTON & MENK
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 306 OF 359

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DETECTORS			VIDEO DETECTION CHART		
NUMBER	MOUNTYING TYPE	LOCATION	CAMERA NO.	LOCATION	PHASE
D2-1, D2-2	VIDEO 2 (V-2)	120', 120'	V-1	POLE 3	4
D4-1 D4-2	VIDEO 1 (V-1)	5'	V-2	POLE 2	2
D6-1, D6-2	VIDEO 4 (V-4)	120', 120'	V-3	POLE 1	8
D8-1 D8-2	VIDEO 3 (V-3)	5'	V-4	POLE 4	6

LOCATION = DISTANCE IN FEET FROM STOP BAR TO DETECTION AREA

SIGNAL FACE CHART			
FACE	R	Y	G
2-1, 2-2, 2-3	●	●	●
4-1, 4-2, 4-3	●	●	●
6-1, 6-2, 6-3	●	●	●
8-1, 8-2, 8-3	●	●	●

- ALL SIGNAL INDICATIONS SHALL BE 12" LED
- ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELD.

NOTE:
THIS PLAN SPECIFIES COAXIAL (VIDEO) AND 3/C#14 (POWER) CABLES FOR THE VIDEO DETECTION CAMERAS. THE ACTUAL CABLE OR CABLES REQUIRED DEPEND ON THE TYPE OF VIDEO DETECTION SYSTEM SUPPLIED.

NOTE:
WIRELESS INTERCONNECT TO MASTER CONTROLLER AT OLD 212/CR61.

MASTER ID 21603.

(A) STA 5+60.4, 46.1' LT (NW)
STA 5+57.4, 40.1' LT (SE)
EQUIPMENT PAD - SEE DETAIL
SERVICE CABINET
CONTROLLER AND CABINET

CONTROLLER CABINET TO HH1
4" CONDUIT TO HH 1
5-12/C#14
1-4/C#14
2-3/C#14 (EVP)*
2-3/C#14 (CAMERA POWER)
2-COAXIAL CABLE CAMERA
1-COAXIAL CABLE**
2-3/C#20 (EVP)*
4-2/C#14
1-1/C#6 INS GRD

CONTROLLER CABINET TO HH 5
4" CONDUIT
5-12/C#14
1-4/C#14
2-3/C#14 (EVP)*
2-3/C#14 (CAMERA POWER)
2-COAXIAL CABLE CAMERA
2-3/C#20 (EVP)*
4-2/C#14
1-1/C#6 INS GRD

CONTROLLER CABINET
3" CONDUIT STUBBED OUT
(CAPPED BOTH ENDS)

CONTROLLER CABINET
¾" CONDUIT STUBBED OUT
(CAPPED FOR TELEPHONE LINE)

CONTROLLER
2" CONDUIT STUBBED OUT
(CAPPED BOTH ENDS)

SERVICE CABINET TO HH 1:
2" CONDUIT
2-3/C#14 (LUM)

CONTROLLER CABINET TO SERVICE CABINET
2" CONDUIT
2-1/C#6
1-1/C#6 INS GRD

HH1 TO HH 5:
2" CONDUIT
1-3/C#14 (LUM)

SERVICE CABINET TO HH 6:
2" CONDUIT
3-1/C#2

(4) STA 4+95.4, 37.6' LT
PA90 POLE FOUNDATION
TYPE PA90-A-35-D40-9 (DAVIT AT 350°)
2-SWING AWAY HINGES
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 9'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90° AND 180°
2-ANGLE MOUNT C.D. PED IND AT 90° AND 180°
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 2)*
1-VIDEO CAMERA MOUNTED ON 6' EXTENSION ON MASTARM AT 2' (V-4)
LUMINAIRE 250W HPS
1-SIGN D-2 (SEE SHEET 42 FOR DETAIL)

3" CONDUIT TO HH 4
3-12/C#14
1-3/C#14 (EVP)*
1-3/C#14 (LUM)
1-3/C#14 (CAMERA POWER)
1-COAXIAL CABLE CAMERA
1-3/C#20 (EVP)*
1-1/C#6 INS GRD

STA 5+06.5, 41.4' LT
APS PED PB STA (PB6-2)
1-APS PB AND SIGN (RT ARROW)
EXTEND TO HH 4:
1-1/4" CONDUIT
1-2/C#14

STA 4+95.8, 31.4' LT
APS PED PB STA (PB4-1)
1-APS PB AND SIGN (RT ARROW)
EXTEND TO HH 4:
1-1/4" CONDUIT
1-2/C#14

(1) STA 5+60.2, 34.1'' LT
PA85 POLE FOUNDATION
TYPE PA85-A-25
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90° AND 180°
2-ANGLE MOUNT C.D. PED IND AT 90° AND 180°
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 8)*
1-VIDEO CAMERA MOUNTED ON 6' EXTENSION ON MAST ARM AT 2' (V-3)
1-RADIO INTERCONNECT ANTENNA**
1-APS PB AND SIGN (LT ARROW) (PB8-2)
1-SIGN D-1 (SEE SHEET 42 FOR DETAIL)
1-SIGN D-3 (SEE SHEET 42 FOR DETAIL)

4" CONDUIT
5-12/C#14
1-4/C#14
2-3/C#14 (EVP)*
1-3/C#14 (LUM)
2-3/C#14 (CAMERA POWER)
4-2/C#14
2-COAXIAL CABLE CAMERA
2-3/C#20 (EVP)*
1-1/C#6 INS GRD

3" CONDUIT TO HH 1
2-12/C#14
1-4/C#14
1-3/C#14 (EVP)*
1-3/C#14 (CAMERA POWER)
1-2/C#14
1-COAXIAL CABLE CAMERA
1-COAXIAL CABLE **
1-3/C#20 (EVP)*
1-1/C#6 INS GRD

4" CONDUIT
3-12/C#14
1-3/C#14 (EVP)*
1-3/C#14 (LUM)
1-3/C#14 (CAMERA POWER)
2-2/C#14
1-COAXIAL CABLE CAMERA
1-3/C#20 (EVP)*
1-1/C#6 INS GRD

STA 5+51.0, 41.0' LT
APS PED PB STA (PB6-1)
1-APS PB AND SIGN (LT ARROW)
EXTEND TO HH 1:
1-1/4" CONDUIT
1-2/C#14

2ND STREET
POSTED 30 MPH

CHESTNUT STREET (TH 41)
POSTED 30 MPH

4" CONDUIT
2-12/C#14
1-4/C#14
1-3/C#14 (EVP)*
1-3/C#14 (CAMERA POWER)
2-2/C#14
1-COAXIAL CABLE CAMERA
1-3/C#20 (EVP)*
1-1/C#6 INS GRD

(3) STA 4+94.1, 45.4' RT
PA85 POLE FOUNDATION
TYPE PA85-A-25
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90° AND 180°
2-ANGLE MOUNT C.D. PED IND AT 90° AND 180°
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 8)*
1-VIDEO CAMERA MOUNTED ON 6' EXTENSION ON MAST ARM AT 2' (V-1)
1-APS PB AND SIGN (LT ARROW) (PB4-2)
1-SIGN D-1 (SEE SHEET 42 FOR DETAIL)
1-SIGN D-3 (SEE SHEET 42 FOR DETAIL)

3" CONDUIT TO HH 3
2-12/C#14
1-4/C#14
1-3/C#14 (EVP)*
1-3/C#14 (CAMERA POWER)
1-2/C#14
1-COAXIAL CABLE CAMERA
1-3/C#20 (EVP)*
1-1/C#6 INS GRD

STA 5+05.4, 50.7' RT
APS PED PB STA (PB2-1)
1-APS PB AND SIGN (LT ARROW)
EXTEND TO HH 3:
1-1/4" CONDUIT
1-2/C#14

2" CONDUIT
3-1/C#2

STA 5+48.9, 54.0' RT
APS PED PB STA (PB2-2)
1-APS PB AND SIGN (RT ARROW)
EXTEND TO HH 2:
1-1/4" CONDUIT
1-2/C#14

STA 5+57.9, 45.5' RT
APS PED PB STA (PB8-1)
1-APS PB AND SIGN (RT ARROW)
EXTEND TO HH 2:
1-1/4" CONDUIT
1-2/C#14

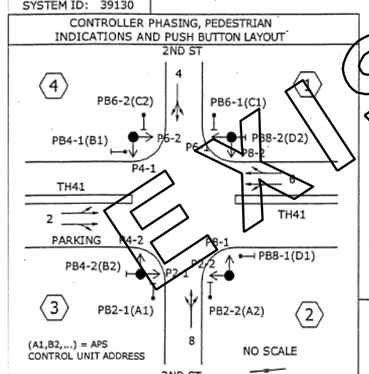
(2) STA 5+58.4, 50.7' RT
PA90 POLE FOUNDATION
TYPE PA90-A-35-D40-9 (DAVIT AT 350°)
2-SWING AWAY HINGES
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 2'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90° AND 180°
2-ANGLE MOUNT C.D. PED IND AT 90° AND 180°
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 2)*
1-VIDEO CAMERA MOUNTED ON 6' EXTENSION ON MAST ARM AT 2' (V-2)
LUMINAIRE 250W HPS
1-SIGN D-2 (SEE SHEET 42 FOR DETAIL)

3" CONDUIT TO HH 2
2-12/C#14
2-4/C#14
1-3/C#14 (EVP)*
1-3/C#14 (LUM)
1-3/C#14 (CAMERA POWER)
1-COAXIAL CABLE CAMERA
1-3/C#20 (EVP)*
1-1/C#6 INS GRD

(B) SOURCE OF POWER (SOP)
CONTRACTOR TO COORDINATE CONNECTION WITH CHASKA ELECTRIC. SEE SPECIAL PROVISIONS.
HH8 TO HH7
2" CONDUIT:
3-1/C#2

TE: 4910
SYSTEM ID: 39130

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTON LAYOUT



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

SIGNAL SYSTEM OPERATION

- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- NORMAL OPERATION SHALL BE 4 PHASE.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

NOTES:

1. THE EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS, EQUIPMENT PAD, AND PEDESTRIAN CURB RAMPS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER WITH CONCURRENCE FROM A METRO TRAFFIC REPRESENTATIVE.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL.
3. SEE SHEET 42 FOR TYPE D SIGN DETAILS. ALL SIGNS REQUIRED ARE CONSIDERED INCIDENTAL.
4. PAVEMENT MARKINGS ARE PAID FOR SEPARATELY. SEE PAVEMENT MARKING PLAN FOR DETAILS.
5. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
6. ALL NEW CONDUIT SHALL BE NMC - SCHEDULE 80 AND SHALL CARRY 1/C#6 GREEN INSULATED GROUNDING CONDUCTOR AS SHOWN IN THE PLAN.
7. SEE CAMERA MOUNTING DETAIL SHEET FOR MAST ARM THREADED COUPLING DETAIL. (SHEET 39)
8. ITEMS DENOTED WITH AN * ARE PAID FOR AS PART OF EMERGENCY VEHICLE PREEMPTION (EVP) SYSTEM.
9. ITEMS DENOTED WITH AN ** ARE PAID FOR AS PART OF TRAFFIC CONTROL INTERCONNECTION.
10. TRAFFIC CONTROL INTERCONNECTION WILL INCLUDE VERIFICATION/INSTALLATION OF AN ACCEPTABLE RECEIVING ANTENNA WITHIN MASTER CONTROLLER AT TH 41 / CR 61 POINTING TOWARDS TH 41 / 2ND ST.

Horizontal Scale In Feet: 0 20 40

EXISTING SIGNAL PLAN

T.H. 41 AT 2ND ST.
REVISE SIGNAL SYSTEM A - EXISTING SIGNAL PLAN

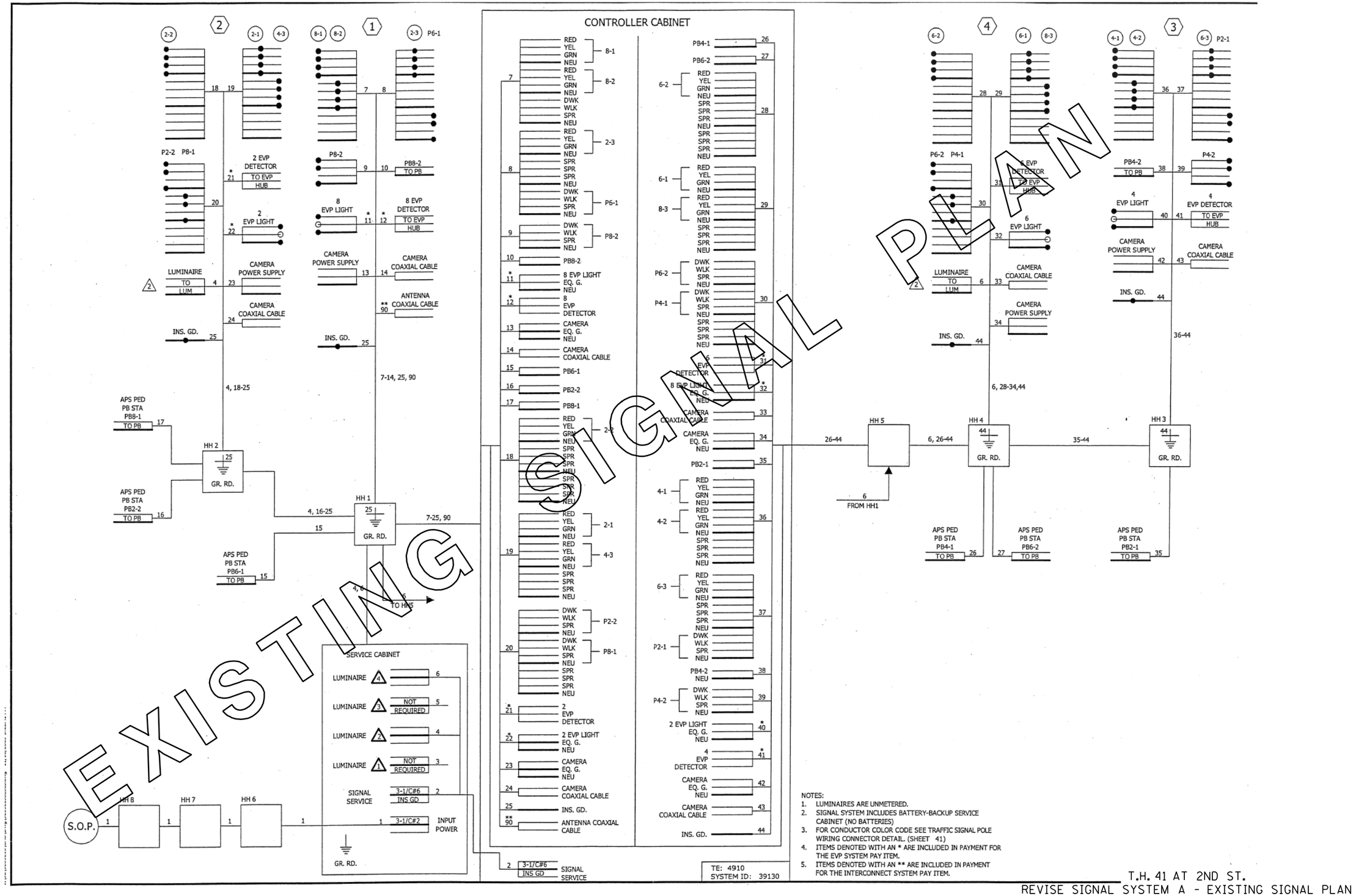
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EXISTING
SIGNAL PLAN

T.H. 41 AT 2ND ST.
REVISE SIGNAL SYSTEM A - EXISTING SIGNAL PLAN

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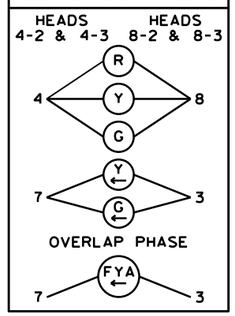
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SIGNAL HEAD CHART

FACE	R	Y	FYA	G	Y	G	
1-1, 1-2	←	←	←	←			◄F&I
2-1	○	○		○			
2-2	●	●		●			◄REMOVE, F&I
2-3	○	○		○			◄REMOVE
4-1	●	●		●			◄REMOVE, F&I
4-2, 4-3, 8-2, 8-3	○	○		○			◄REMOVE
4-2, 4-3	●	●	←	●	←	←	◄F&I
5-1, 5-2	←	←	←	←			◄F&I
6-1	○	○		○			
6-2	●	●		●			◄REMOVE, F&I
8-1	○	○		○			
8-2, 8-3	●	●	←	●	←	←	◄F&I

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW

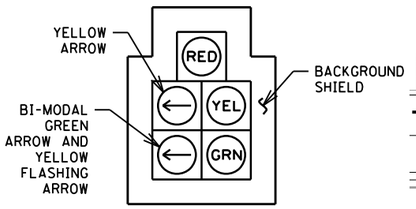
SIGNAL HEAD PHASING



VIDEO DETECTION CHART

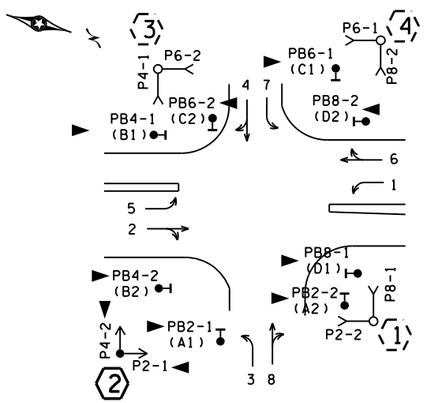
	VIDEO CAMERA	LOCATION	PHASE
REMOVE ►	V-1	POLE 1	2 & 5
REMOVE ►	V-2	POLE 2	4
REMOVE ►	V-3	POLE 3	1 & 6
REMOVE ►	V-4	POLE 4	8
INSTALL ►	V-1	LUM 1	ALL

5 SECTION FYA CLUSTER HEAD DETAIL



HEADS 4-2, 4-3, 8-2 & 8-3

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

► DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5 & 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

SIGNAL SYSTEM REVISIONS:
► 1. REVISED ITEMS INDICATED IN BOLD AND BY "►".
► 2. REMOVE EXISTING PUSH BUTTONS, PUSH BUTTON STATIONS, AND ASSOCIATED CONDUIT AND CABLES.
► 3. REMOVE EXISTING WIRING UNLESS OTHERWISE NOTED.
► 4. REMOVE EXISTING POLE 2, MAST ARMS 3 & 4, AND ALL ASSOCIATED EQUIPMENT, INCLUDING CONDUIT, CABLES AND FOUNDATIONS.
► 5. REMOVE EXISTING VIDEO DETECTION SYSTEM, RADIO INTERCONNECT, HPS LUMINAIRES, AND MAST ARM SIGNS.
► 6. F&I POLE 2, MAST ARMS 3 & 4, PUSH BUTTON STATIONS AND ASSOCIATED EQUIPMENT AS NOTED IN THE PLANS.
► 7. F&I WIRING AS NOTED IN THE PLANS.
► 8. ADJUST HANDHOLES IMPACTED BY ADA IMPROVEMENTS.
► 9. PAINT SIGNAL SYSTEM AS SPECIFIED IN SPECIAL PROVISIONS.
► 10. ITEMS ARE EXISTING UNLESS OTHERWISE NOTED.

NOTES:
► 1. SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
► 2. REFER TO "EXISTING SIGNAL PLAN" SHEETS FOR INPLACE SIGNAL COMPONENTS.
► 3. ENSURE THE EXACT LOCATION OF POLES AND PEDESTRIAN PUSH BUTTON STATIONS ARE VERIFIED IN THE FIELD BY MNDOT TRAFFIC OFFICE PERSONNEL.
► 4. PAVEMENT MARKINGS ARE INCLUDED AS PART OF STRIPING PLANS.
► 5. FOR TYPE D SIGNS, SEE DETAIL SHEET. ALL SIGNS REQUIRED ARE INCIDENTAL.
► 6. CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE INCLUDED AS PART OF THE ROADWAY PLAN. SEE THE INTERSECTION DETAILS, INCLUDED WITH THE ROADWAY PLAN, FOR INFORMATION.
► 7. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD.
► 8. USE PVC OR HDPE FOR ALL NEW CONDUIT.
► 9. CONDUIT SIZED ARE NOMINAL DIAMETER.
► 10. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).

T.H. 41 (CHESTNUT ST) AT 4TH ST
REVISE SIGNAL SYSTEM B - LAYOUT

SYSTEM ID: 1735307 (OLD ID: 20550)
T.E.: 49109
DISTRICT: METRO
SCALE 0 20 40 FEET
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BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
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REV.	BY	DATE

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 309 OF 359

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tomasz.dudek

► DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

(3)
PA100 POLE FOUNDATION
REMOVE MAST ARM ► TYPE PA90-A-45-D40-9 (DAVIT AT 350 DEG)
F&I ► **40' MAST ARM**
1-PAIR SWING AWAY HINGES
REMOVE ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 7'**
F&I ► **1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'**
F&I ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 10'**
F&I ► **1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR AT 90 DEG**
REMOVE ► 1 2-ANGLE MOUNT SIGNALS POLE MOUNTED AT ~~90~~ AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
REMOVE ► 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 2+5)
REMOVE ► **1-VIDEO DETECTION CAMERA AND MOUNT**
F&I ► **1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 1+6)**
REMOVE ► **LUMINAIRE 250W HPS**
F&I ► **LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)** (2)
F&I ► **1-R10-X12 SIGN ADJACENT TO HEAD (1-1)**
REMOVE ► **2-TYPE D SIGNS**
F&I ► **1-SIGN (FOURTH ST) (SEE SIGN DETAILS)**
3" CONDUIT TO HH 4
F&I ► **2-6/C 14**
6-4/C 14
1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.

(4)
PA85 POLE FOUNDATION
REMOVE MAST ARM ► TYPE PA85-A-25
F&I ► **20' MAST ARM**
REMOVE ► 1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
F&I ► **1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR OVERHEAD AT 0'**
F&I ► **1-ANGLE MOUNT SIGNAL POLE MOUNTED AT 90 DEG**
REMOVE ► 1 2-ANGLE MOUNT SIGNALS POLE MOUNTED AT ~~90~~ AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
REMOVE ► 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 8)
F&I ► **1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 8+3)**
REMOVE ► **1-VIDEO DETECTION CAMERA AND MOUNT**
F&I ► **1-R10-X12 SIGN ADJACENT TO HEAD (8-2)**
REMOVE ► **2-TYPE D SIGNS**
F&I ► **2-SIGNS (MN41 DBL)(CHESTNUT ST) (SEE SIGN DETAILS)**
3" CONDUIT TO HH 5
F&I ► **2-6/C 14**
5-4/C 14
1-3/C 14 (EVP)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.

(A) EQUIPMENT PAD
SERVICE CABINET
CONTROLLER AND CABINET

CONTROLLER CABINET TO HH1 TO HH 2
4" CONDUIT
F&I ► **4-6/C 14**
11-4/C 14
2-3/C 14 (EVP)
2-3/C 20 (EVP)
4-2/C 14
1-CAT 5E TRA MGMT CAM
1-1/C 6 INS. GR.

CONTROLLER CABINET TO HH8 TO HH7
4" CONDUIT
F&I ► **4-6/C 14**
11-4/C 14
2-3/C 14 (EVP)
2-3/C 20 (EVP)
4-2/C 14
1-CAT 5E VIDEO DET
1-1/C 6 INS. GR.

CONTROLLER CABINET
3" CONDUIT STUBBED OUT
(CAPPED BOTH ENDS)

CONTROLLER
2" CONDUIT STUBBED OUT
(CAPPED BOTH ENDS)

CONTROLLER CABINET
3/4" CONDUIT STUBBED OUT
(CAPPED FOR TELEPHONE LINE)

SERVICE CABINET TO HH1:
2" CONDUIT
F&I ► **2-3/C 14**

CONTROLLER CABINET TO SERVICE CABINET
2" CONDUIT
3-1/C 6
1-1/C 6 INS. GR.

F&I ► **1-1/2" CONDUIT TO TMS VAULT:**
BY OTHERS, SEE TMS PLAN ► **1-FO PIGTAIL (6-SM)**

(B) INPLACE SOURCE OF POWER (SOP)
CHASKA ELECTRIC UTILITY
HH1 TO SERVICE CABINET
2" CONDUIT
3-1/C 2

(2)
X: 543046.52
Y: 153844.71
PA85 POLE FOUNDATION
TYPE PA85-A-20-X400 CAM EXTENSION
(INCLUDES LIGHTNING ROD, 7/16" GROUND BRAID, AND GROUND ROD)
1-TRAFFIC MANAGEMENT CAMERA (STATE FURNISHED) WITH MOUNT
1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR OVERHEAD AT 0'
2-ANGLE MOUNT SIGNAL AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4+7)
F&I ► **1-R10-X12 SIGN ADJACENT TO HEAD (4-2)**
2-SIGNS (MN41 DBL)(CHESTNUT ST) (SEE SIGN DETAILS)

3" CONDUIT TO HH 2:
2-6/C 14
5-4/C 14
1-3/C 14 (EVP)
1-3/C 20 (EVP)
1-1/C 6 INS. GR.
1-CAT 5E TRA MGMT CAM
1-7/16" GROUNDING BRAID TO GROUND ROD IN HH 2

(1)
PA100 POLE FOUNDATION
TYPE PA90-A-45-D40-9 (DAVIT AT 350 DEG)
1-PAIR SWING AWAY HINGES
REMOVE ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 2'**
F&I ► **1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'**
F&I ► **1-STRAIGHT MOUNT SIGNAL OVERHEAD ON EX. HUB AT 11'**
F&I ► **1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR AT 90 DEG**
REMOVE ► 1 2-ANGLE MOUNT SIGNALS POLE MOUNTED AT ~~90~~ AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
ADJUST ► 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT MOUNTED 6' FROM END OF MAST ARM (PHASE 2+5)
REMOVE ► **1-VIDEO DETECTION CAMERA AND MOUNT**
INSTALL ► **1-GRIDSMART VIDEO DETECTION CAMERA (V-1) (STATE FURNISHED) MOUNTED ON LUMINAIRE**
REMOVE ► **LUMINAIRE 250W HPS**
F&I ► **LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)** (1)
F&I ► **1-R10-X12 SIGN ADJACENT TO HEAD (5-1)**
REMOVE ► **2-TYPE D SIGNS**
F&I ► **1-SIGN (FOURTH ST) (SEE SIGN DETAILS)**
3" CONDUIT TO HH 7
F&I ► **2-6/C 14**
6-4/C 14
1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 20 (EVP)
1-CAT 5E VIDEO DET
1-1/C 6 INS. GR.

T.H. 41 (CHESTNUT ST) AT 4TH ST
REVISE SIGNAL SYSTEM B - LAYOUT

SYSTEM ID: 1735307 (OLD ID: 20550)
T.E.: 49109
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REV.	BY	DATE

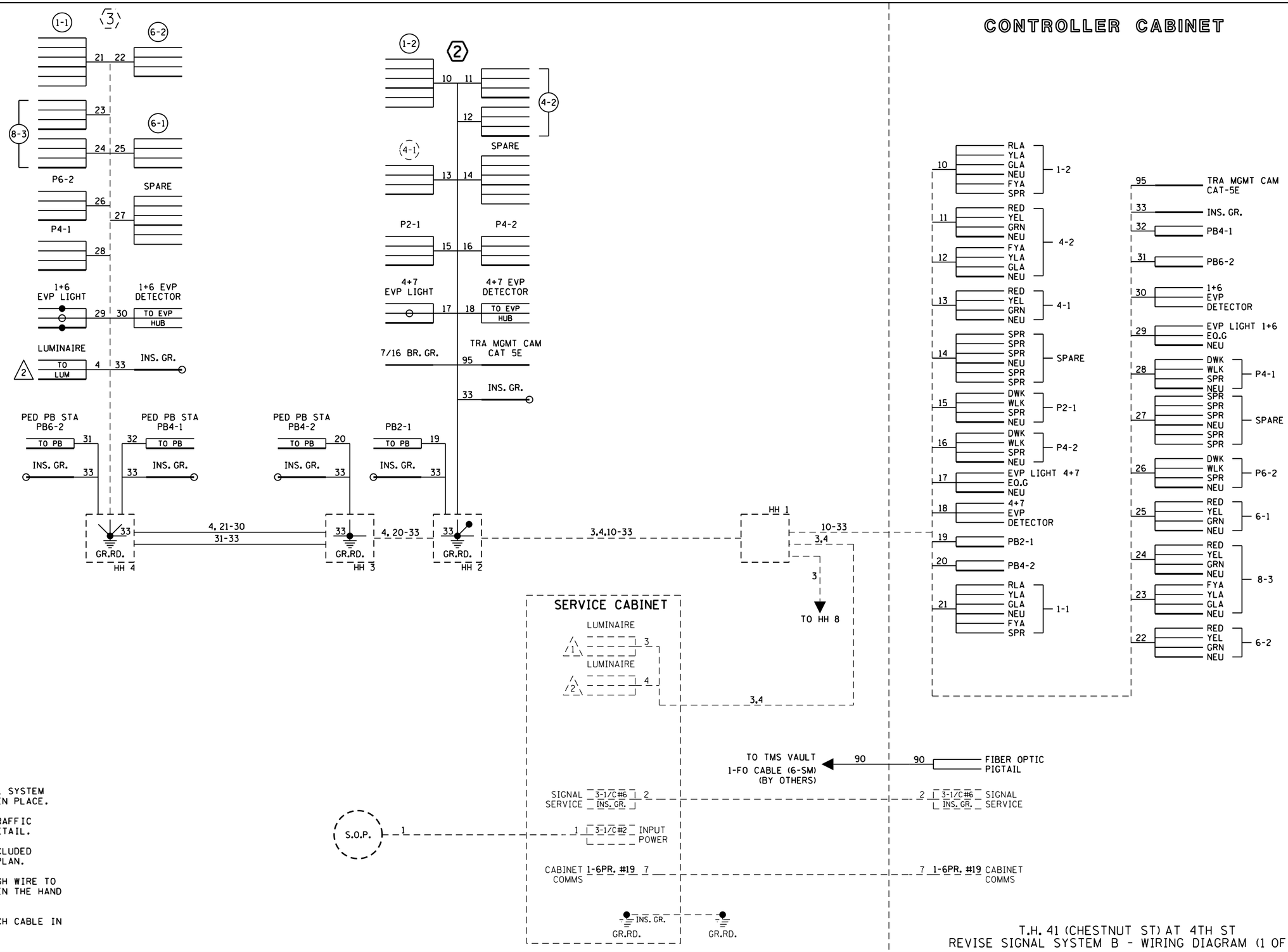
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CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 310 OF 359

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NOTES:

1. ALL WORK SHOWN IS REVISE SIGNAL SYSTEM PAY ITEM WORK UNLESS SHOWN AS IN PLACE.
2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
3. THE PIGTAIL TO TMS VAULT IS INCLUDED IN PAYMENT AS PART OF THE TMS PLAN.
4. FOR EACH SPARE WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HAND HOLE NEAREST EACH POLE.
5. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

T.H. 41 (CHESTNUT ST) AT 4TH ST
REVISE SIGNAL SYSTEM B - WIRING DIAGRAM (1 OF 2)

SYSTEM ID: 1735307 (OLD ID: 20550)
T.E.: 49109

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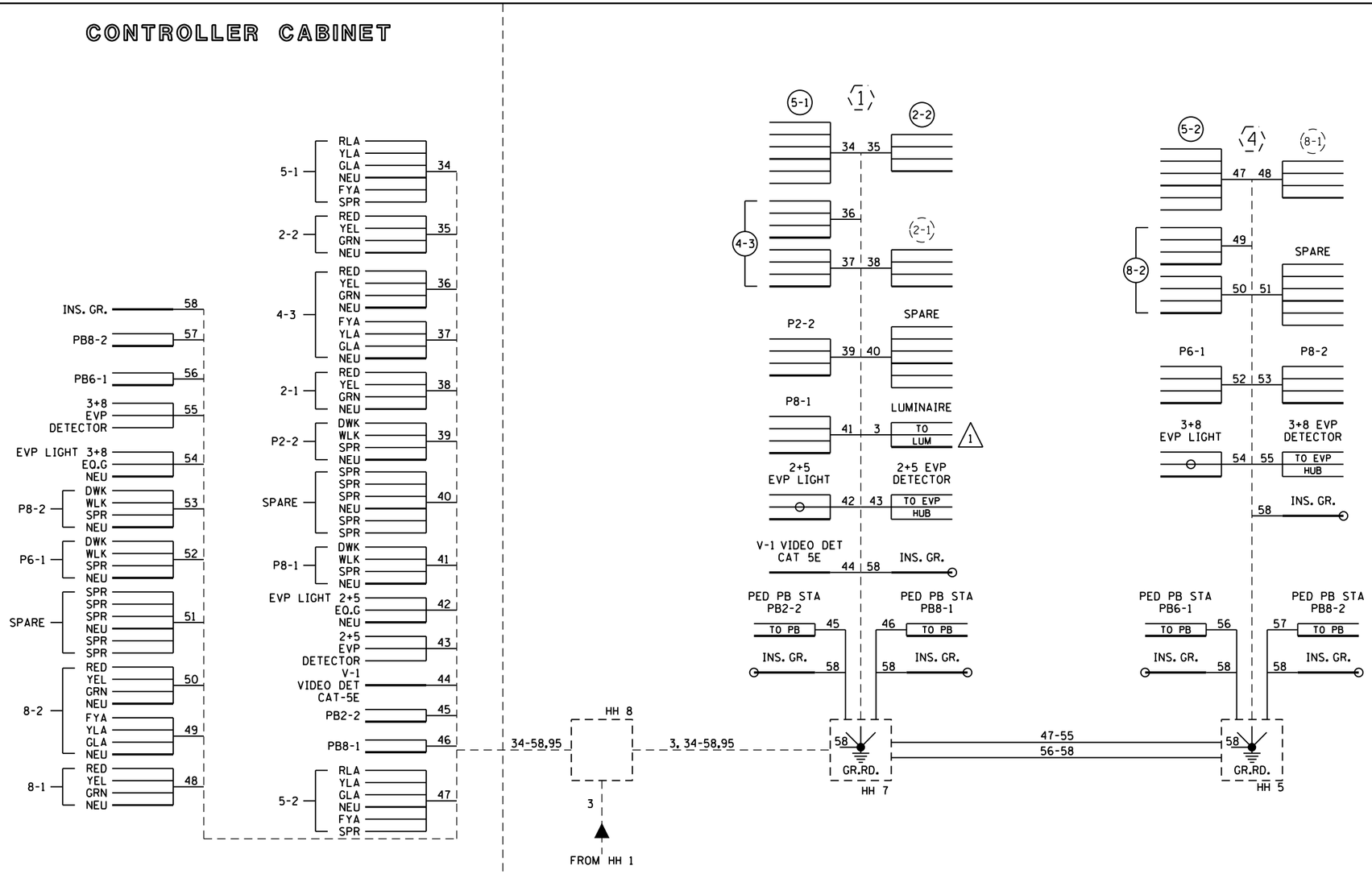
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SIGNAL PLAN

SHEET 311 OF 359

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NOTES:

1. ALL WORK SHOWN IS REVISE SIGNAL SYSTEM PAY ITEM WORK UNLESS SHOWN AS IN PLACE.
2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
3. THE PIGTAIL TO TMS VAULT IS INCLUDED IN PAYMENT AS PART OF THE TMS PLAN.
4. FOR EACH SPARE WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HAND HOLE NEAREST EACH POLE.
5. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

T.H. 41 (CHESTNUT ST) AT 4TH ST
REVISE SIGNAL SYSTEM B - WIRING DIAGRAM (2 OF 2)

SYSTEM ID: 1735307 (OLD ID: 20550)
T.E.: 49109

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

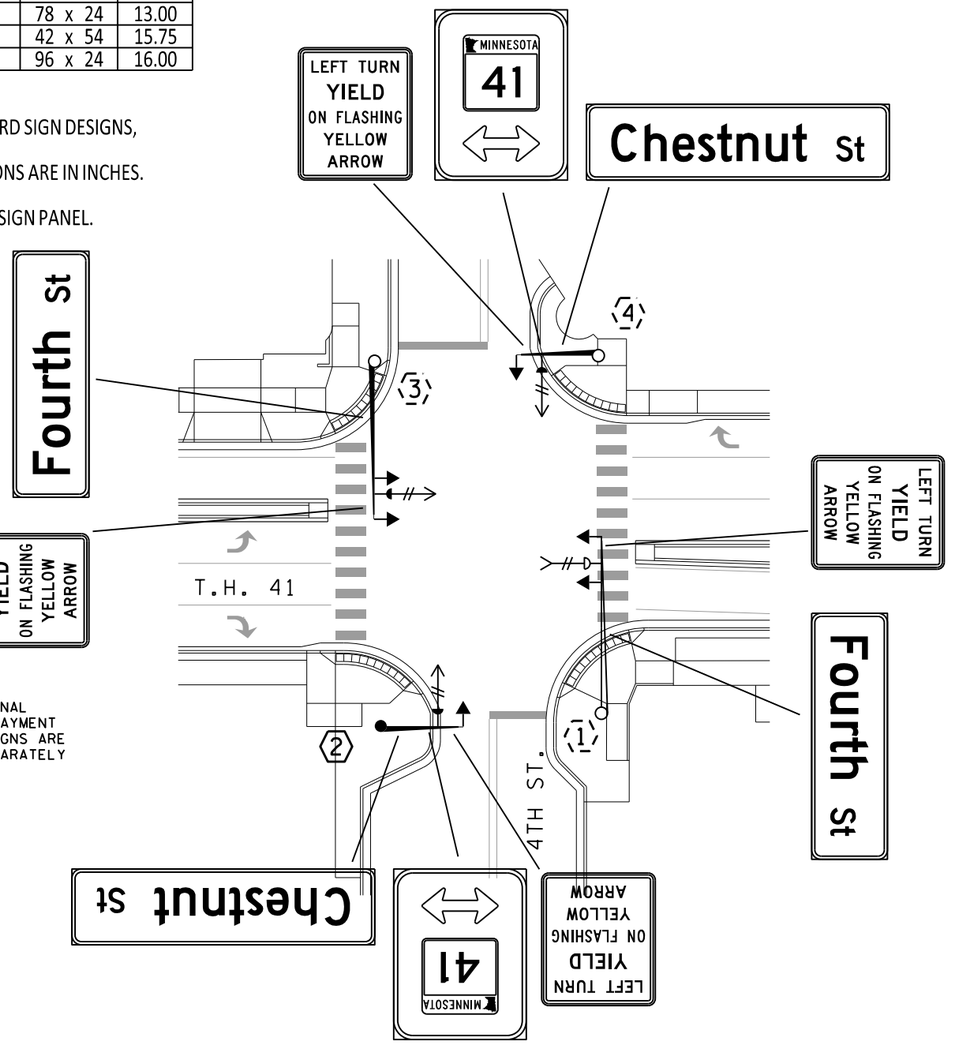
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SIGN PANELS ON SIGNALS

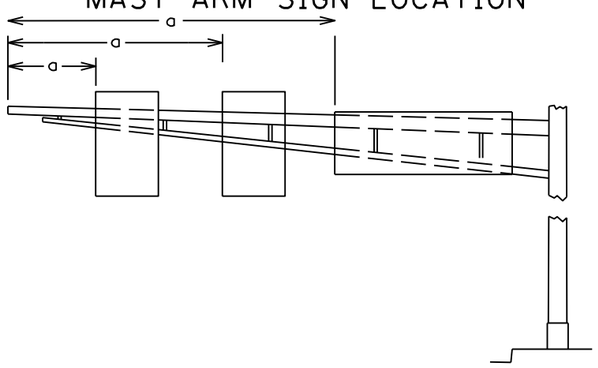
POLE NUMBER	"A" DISTANCE (FEET) OR POLE	PANEL				
		QTY	CODE NUMBER	LEGEND	SIZE (INCHES)	AREA (SQ FT)
1,2,3,4	0	4	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	36 x 42	10.50
1	22	1		FOURTH ST	78 x 24	13.00
2	7	1		MN41 DBL	42 x 54	15.75
2	11	1		CHESTNUT ST	96 x 24	16.00
3	24	1		FOURTH ST	78 x 24	13.00
4	7	1		MN41 DBL	42 x 54	15.75
4	11	1		CHESTNUT ST	96 x 24	16.00

GENERAL NOTE(S):
1. SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, ARROW DETAILS AND SPLICE PLATE DETAILS.
2. FOR NON STANDARD SIGN DESIGNS, LAYOUTS ARE INCLUDED. SIGN PANEL DIMENSIONS ARE IN INCHES.
3. SEE STANDARD PLAN 5-297.731 FOR SIGN MOUNTING TO MAST ARM.
4. "A" DISTANCE = DISTANCE FROM THE END OF THE MAST ARM TO THE EDGE OF EACH SIGN PANEL.



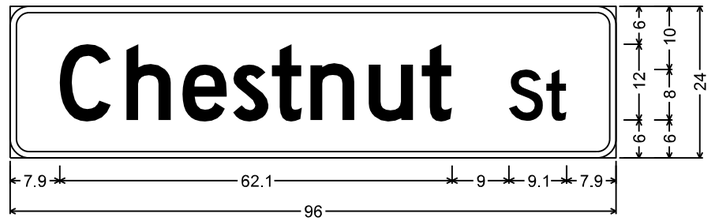
NOTES:
1. ALL SIGN DIMENSIONS ARE IN INCHES.
2. THE SIGNS ON THIS DETAIL SHEET ARE SIGNS THAT ARE MOUNTED ON THE SIGNAL MAST ARM OR SIGNAL POLES. THESE SIGNS ARE INCLUDED IN THE LUMP SUM PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM. ADDITIONAL GROUND MOUNTED SIGNS ARE REQUIRED AND ARE INCLUDED WITH THE SIGNING PLAN AND ARE PAID FOR SEPARATELY AS INDICATED WITH THE SIGNING PLAN.

MAST ARM SIGN LOCATION

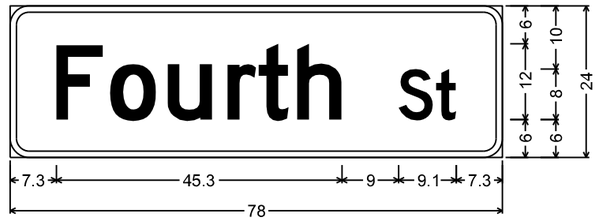




6.0" Radius, 1.3" Border, White on Green;
State Highway 41 M1-5M;
Double Headed Arrow 5 - 24.0" 0°;



Chestnut St;
3.0" Radius, 1.0" Border, White on Green;
"Chestnut St", D 2K;



4th St.;
3.0" Radius, 1.0" Border, White on Green;
"Fourth St", D 2K;

T.H. 41 AT 4TH ST.
REVISE SIGNAL SYSTEM B - MAST ARM SIGN DETAILS

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REV.	BY	DATE

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 313 OF 359

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DETECTOR LOCATION ZONES		
DETECTOR ZONE	LOCATION	DETECTOR ZONE
V2-1, V2-2	20	V2-1, V2-2
V4-1	50	V4-1
V6-1, V6-2	5	V6-1, V6-2
V8-1	35	V8-1

LOCATION = DISTANCE IN FEET FROM STOP BAR TO DETECTION AREA

VIDEO DETECTION CHART		
CAMERA NO.	LOCATION	PHASE
V-1	POLE 1	2
V-2	POLE 2	4
V-3	POLE 3	6
V-4	POLE 4	8

SIGNAL FACE CHART			
FACE	R	Y	G
2-1, 2-2, 2-3	●	●	●
4-1, 4-2, 4-3	●	●	●
6-1, 6-2, 6-3	●	●	●
8-1, 8-2, 8-3	●	●	●

-ALL SIGNAL INDICATIONS ARE 12" LED
-ALL SIGNAL HEADS HAVE BLACK POLYCARBONITE WITH BACKGROUND SHIELDS

40
SCALE IN FEET

③ PA100 POLE FOUNDATION
TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)
2-SWING AWAY HINGES
3-HUBS (FOR FUTURE) OVERHEAD AT 0', 11' AND 16'
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 7'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 6)
1-VIDEO DETECTION CAMERA MOUNTED ON 6' EXTENSION ON MAST ARM AT 2'
LUM-250W HPS
1-SIGN D-4 (4th ST)
3" PVC TO HH 4
2-12/C #14
1-3/C #14 CAMERA POWER
1-3/C #14
1-3/C #14 LUM
1-COAXIAL CABLE CAMERA
1-3/C #20
1-1/C #6 INS. GR.

PED PB STATION
1-APS PB AND SIGN (RT ARROW) (PB4-2)
EXTEND INTO HH 3
1 1/4" PVC
1-2/C #14

PED PB STATION
1-APS PB AND SIGN (LT ARROW) (PB2-1)
EXTEND INTO HH 2
1 1/4" PVC
1-2/C #14

PED PB STATION
1-APS PB AND SIGN (RT ARROW) (PB6-2)
EXTEND INTO HH 5
1 1/4" PVC
1-2/C #14

PED PB STATION
1-APS PB AND SIGN (LT ARROW) (PB4-1)
EXTEND INTO HH 4
1 1/4" PVC
1-2/C #14

4" PVC
2-12/C #14
1-3/C #14 CAMERA POWER
1-3/C #14
1-3/C #14 LUM
2-2/C #14
1-COAXIAL CABLE CAMERA
1-3/C #20
1-1/C #6 INS. GR.

2" PVC
1-2/C #14

4TH ST

④ PA85 POLE FOUNDATION
TYPE PA85-A-25
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4)
1-VIDEO DETECTION CAMERA MOUNTED ON 6' EXTENSION ON MAST ARM AT 2'
2-SIGN D-5 (TH 41), D-6 (CHESTNUT ST)
3" PVC TO HH 6
2-12/C #14
1-3/C #14 CAMERA POWER
1-3/C #14
1-COAXIAL CABLE CAMERA
1-3/C #20
1-1/C #6 INS. GR.

PED PB STATION
1-APS PB AND SIGN (LT ARROW) (PB6-1)
EXTEND INTO HH 6
1 1/4" PVC
1-2/C #14

4" PVC
2-12/C #14
1-3/C #14 CAMERA POWER
1-3/C #14
1-COAXIAL CABLE CAMERA
2-2/C #14
1-3/C #20
1-1/C #6 INS. GR.

PED PB STATION
1-APS PB AND SIGN (RT ARROW) (PB8-2)
EXTEND INTO HH 6
1 1/4" PVC
1-2/C #14

S.B. TH 41 (CHESTNUT ST)
POSTED 30 MPH

N.B. TH 41 (CHESTNUT ST)
POSTED 30 MPH

V2-2
V2-1
V6-1
V6-2
V-1
V-2
V-3
V4-1
V8-1
6 EVP
2 EVP
4 EVP

② PA85 POLE FOUNDATION
TYPE PA85-A-20
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 8)
1-VIDEO DETECTION CAMERA MOUNTED ON 6' EXTENSION ON MAST ARM AT 2'
2-SIGN D-2 (TH 41), D-3 (CHESTNUT ST)
3" PVC TO HH 2
2-12/C #14
1-3/C #14 CAMERA POWER
1-3/C #14
1-COAXIAL CABLE CAMERA
1-3/C #20
1-1/C #6 INS. GR.

4" PVC
2-12/C #14
1-3/C #14 CAMERA POWER
1-3/C #14
1-3/C #14 LUM
3-2/C #14
1-COAXIAL CABLE CAMERA
1-3/C #20
1-1/C #6 INS. GR.

4" PVC
4-12/C #14
2-3/C #14 CAMERA POWER
2-3/C #14
1-3/C #14 LUM
4-2/C #14
2-COAXIAL CABLE CAMERA
2-3/C #20
1-1/C #6 INS. GR.

PED PB STATION
1-APS PB AND SIGN (RT ARROW) (PB2-2)
EXTEND INTO HH 7
1 1/4" PVC
1-2/C #14

4TH ST

① PA100 POLE FOUNDATION
TYPE PA100-A-45-D40-9 (DAVIT AT 350 DEG)
2-SWING AWAY HINGES
3-HUBS (FOR FUTURE) OVERHEAD AT 0', 11' AND 16'
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 7'
2-ANGLE MOUNT SIGNALS AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED IND AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 2)
1-VIDEO DETECTION CAMERA MOUNTED ON 6' EXTENSION ON MAST ARM AT 2'
LUM-250W HPS
1-SIGN D-1 (4th ST)
1-RADIO INTERCONNECT ANTENNA
3" PVC TO HH 7
2-12/C #14
1-3/C #14 CAMERA POWER
1-3/C #14
1-3/C #14 LUM
1-COAXIAL CABLE CAMERA
1-COAXIAL CABLE
1-3/C #20
1-1/C #6 INS. GR.

4" PVC
4-12/C #14
2-3/C #14 CAMERA POWER
2-3/C #14
1-3/C #14 LUM
2-COAXIAL CABLE CAMERA
1-COAXIAL CABLE
4-2/C #14
2-3/C #20
1-1/C #6 INS. GR.

PED PB STATION
1-APS PB AND SIGN (LT ARROW) (PB8-1)
EXTEND INTO HH 7
1 1/4" PVC
1-2/C #14

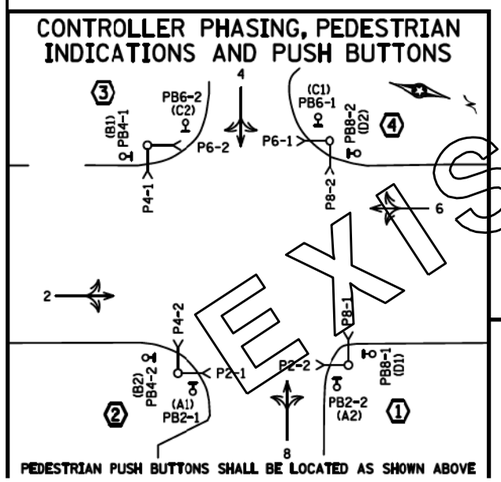
Ⓐ EQUIPMENT PAD - SEE DETAIL
SERVICE CABINET
CONTROLLER AND CABINET
4" PVC TO HH 1
4-12/C #14
2-3/C #14 CAMERA POWER
2-3/C #14
4-2/C #14
2-COAXIAL CABLE CAMERA
2-3/C #20
1-1/C #6 INS. GR.

4" PVC TO HH 8
4-12/C #14
2-3/C #14 CAMERA POWER
2-3/C #14
2-COAXIAL CABLE CAMERA
1-COAXIAL CABLE
4-2/C #14
2-3/C #20
1-1/C #6 INS. GR.

3" PVC STUBBED OUT - CAPPED BOTH ENDS
2" PVC CONTROLLER CABINET TO SERVICE CABINET
2-1/C #6
1-1/C #6 INS. GR.
2" PVC (SPARE)
3/4" PVC STUBBED OUT (TELEPHONE LINE)
SERVICE CABINET TO HH 9
2" PVC
3-1/C #2
SERVICE CABINET TO HH 1
2" PVC
2-3/C #14 (LUM)
HH 1 TO HH 8
2" PVC
1-3/C #14 (LUM)

Ⓑ SOP - UNDERGROUND
(CITY OF CHASKA ELECTRIC)
2" PVC TO HH 9
3-1/C#2
THE SOP DISCONNECT IS LOCATED AT THE NW CORNER OF 5TH STREET & T.H. 41. THE UNDERGROUND CABLE CROSSES T.H. 41 AT 5TH STREET AND RUNS ALONG THE EAST SIDE OF T.H. 41 TO THE SIGNAL CABINET.

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASES 2 AND 6 BEING A PERMISSIVE LEFT TURN PHASES.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

SIGNAL PLAN
EXISTING

T.H. 41 AT 4TH ST.
REVISE SIGNAL SYSTEM B - EXISTING SIGNAL PLAN

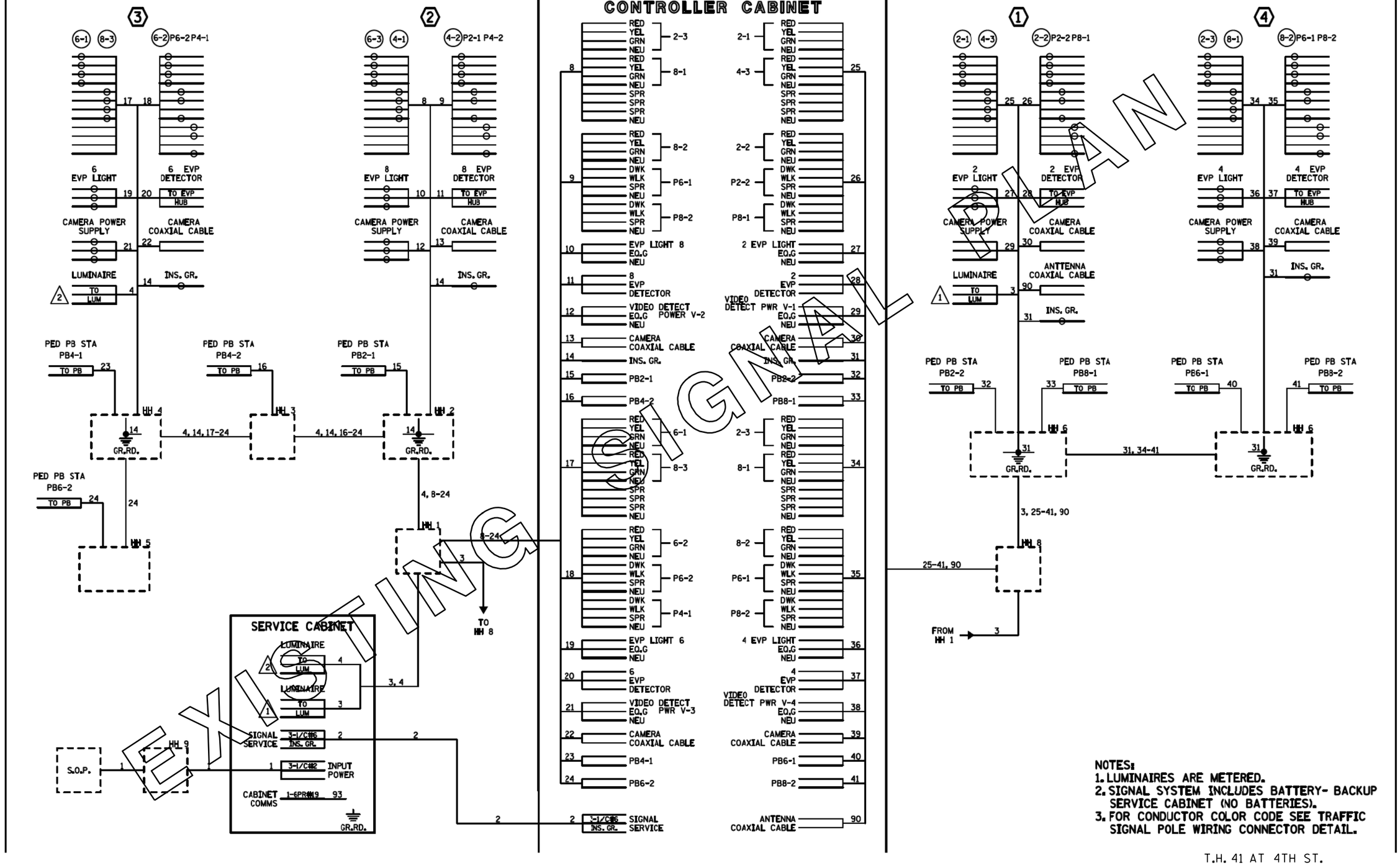
BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 314 OF 359

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T.H. 41 AT 4TH ST.
REVISE SIGNAL SYSTEM B - EXISTING SIGNAL PLAN

EXISTING
PLAN
SIGNAL

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
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REV.	BY	DATE

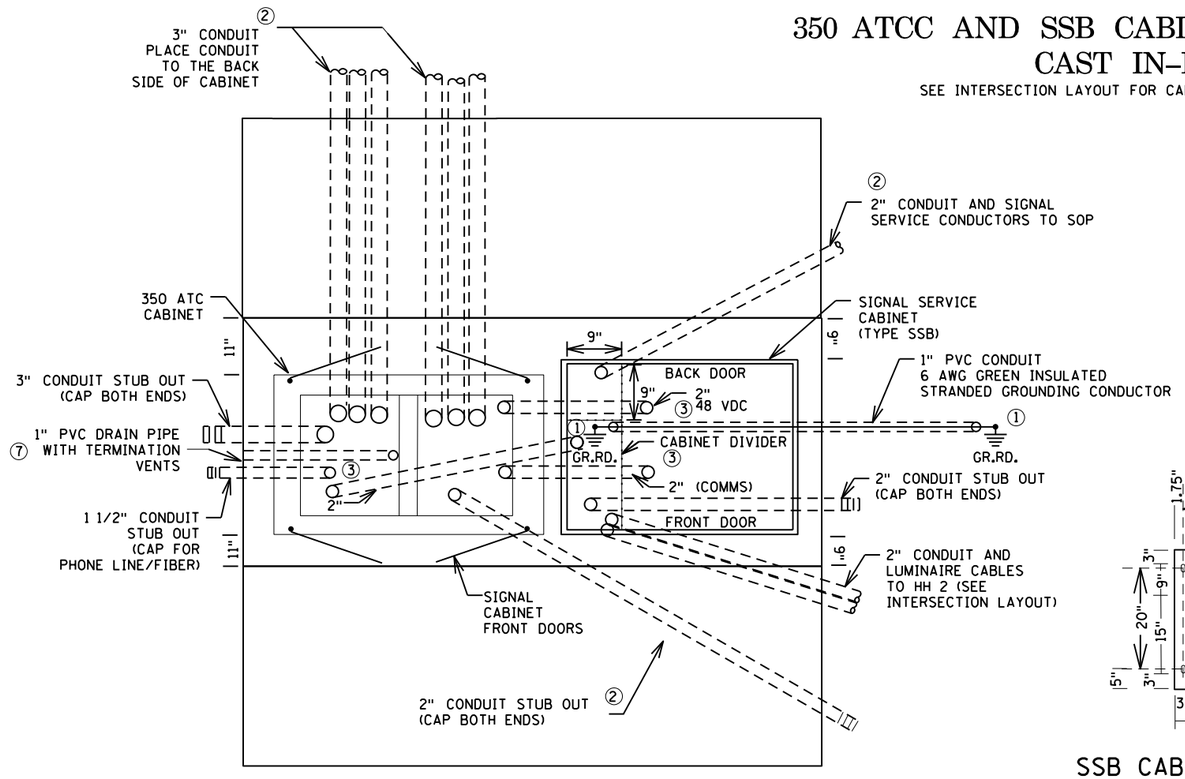
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 315 OF 359

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350 ATCC AND SSB CABINET EQUIPMENT PAD
CAST IN-PLACE

SEE INTERSECTION LAYOUT FOR CABLE INFORMATION (NOT TO SCALE)



PLAN VIEW

NOTES:

FOR THE EQUIPMENT PAD USE CONCRETE MIX 3G52 WITH APPROVED MACRO NON-METALLIC FIBERS FOR REINFORCEMENT LISTED ON MnDOT'S APPROVED/QUALIFIED PRODUCTS LIST UNDER CONCRETE "NONMETALLIC FIBERS (BRIDGE APPLICATIONS)". ADD FIBERS TO THE CONCRETE MIX IN ACCORDANCE WITH THE NON-METALIIC FIBERS MANUFACTURERS INSTRUCTIONS AND CONTRACT DOCUMENTS.

FOR CONCRETE WALK USE CONCRETE MIX 3G52. 3G52 CONCRETE MIX WITH NON-METALLIC FIBERS MAY BE USED FOR THE CONCRETE WALK AND POLE FOUNDATIONS. DO NOT USE NON-METALLIC FIBERS AS A SUBSTITUTE FOR THE REQUIRED REINFORCEMENT IN ACCORDANCE WITH THE POLE FOUNDATION STANDARD PLATES.

① PLACE A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH THE GROUNDING ELECTRODE SYSTEM DETAIL ON SHEET 3 OF STANDARD PLATE NUMBER 8106 EXCEPT FURNISH AND INSTALL 10 FOOT LONG GROUND ROD ELECTRODES, 6 AWG GREEN INSULATED COPPER CONDUCTOR AND EXOTHERMIC WELDED CONNECTIONS.

② CONDUIT SIZE, QUANTITY AND DIRECTION MAY VARY. FURNISH AND INSTALL CONDUITS AS SPECIFIED ON THE INTERSECTION LAYOUT PLAN SHEET.

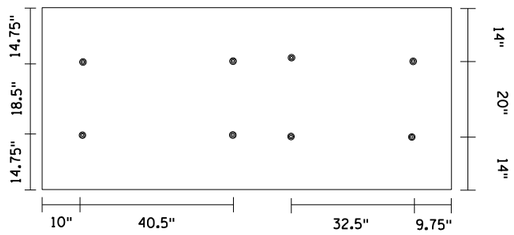
③ ENSURE THE CONDUITS FULLY ENCASED IN CONCRETE FROM ONE CABINET TO THE OTHER ARE PLACED AT THE CORRECT DEPTH AND LOCATION TO AVOID INTERFERENCE WITH THE INSTALLATION OF THE ANCHOR RODS.

④ USE TEMPLATES WITH THE DIMENSIONS SHOWN INCLUDING OPENINGS, DIVIDERS, ANCHOR ROD HOLES AS A GUIDE TO ENSURE PROPER PLACEMENT OF THE CABINETS, CONDUITS AND ANCHOR RODS. 350 BASE OPENINGS FOR TEMPLATE ARE SMALLER THAN THE ACTUAL BASE OPENINGS.

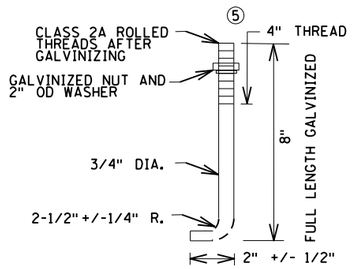
⑤ PLACE ANCHORS 1 3/4 INCHES - 2 1/4 INCHES ANCHOR ROD PROJECTION ABOVE THE CONCRETE PAD. FURNISH AND INSTALL ANCHOR RODS SHOWN IN THE ANCHOR ROD DETAIL FOR WET CASTING ANCHORS IN WET CONCRETE. FURNISH AND INSTALL ANCHOR RODS SHOWN IN THE ANCHOR ROD DETAIL FOR EPOXY ADHESIVE IF USING ADHESIVE ANCHORS. INSERT ANCHOR RODS IN 7/8 INCH DIAMETER DRILLED HOLES,5 INCHES DEEP WITH AN APPROVED EPOXY ADHESIVE LISTED ON MnDOT'S APPROVED/QUALIFIED PRODUCTS LIST (ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON BASE ADHESIVE ANCHORING). DO NOT USE MECHANICAL OR CONCRETE WEDGE ANCHORS.

⑥ IF THE SITE CONDITIONS REQUIRE THE PAD TO BE PLACED WITHIN A SLOPE, INCREASE THE THICKNESS OF THE PAD BY 6 INCHES. SHAPE THE TERRAIN AROUND THE PAD FOR POSITIVE DRAINAGE.

⑦ FURNISH AND INSTALL A DRAIN IN THE PAD USING 1 INCH PVC SCH. 40 PIPE FOR PLUMBING. PLACE PVC TERMINATION VENT SCREEN DESIGNED FOR PVC PIPE AT EACH END OF THE PIPE. PROVIDE PVC TERMINATION VENTS WITH A STAINLESS STEEL SCREEN. ENSURE THE TERMINATION VENT SCREEN AND PIPE ARE FLUSH WITH THE TOP AND SIDE OF THE PAD AND PROTECT FROM CONCRETE INTRUSION BEFORE CONCRETE PLACEMENT OPERATIONS.

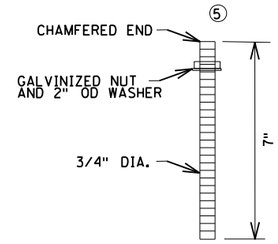


ANCHOR ROD LOCATION DETAIL



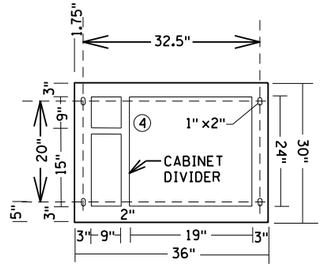
WET CAST ANCHOR ROD DETAIL

(SPEC. 3385 TYPE A OR TYPE B AND GALVANIZED IN ACCORDANCE WITH SPEC. 3392)

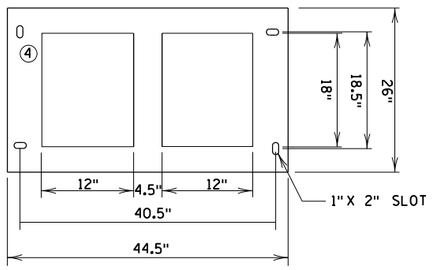


EPOXY ADHESIVE ANCHOR ROD DETAIL

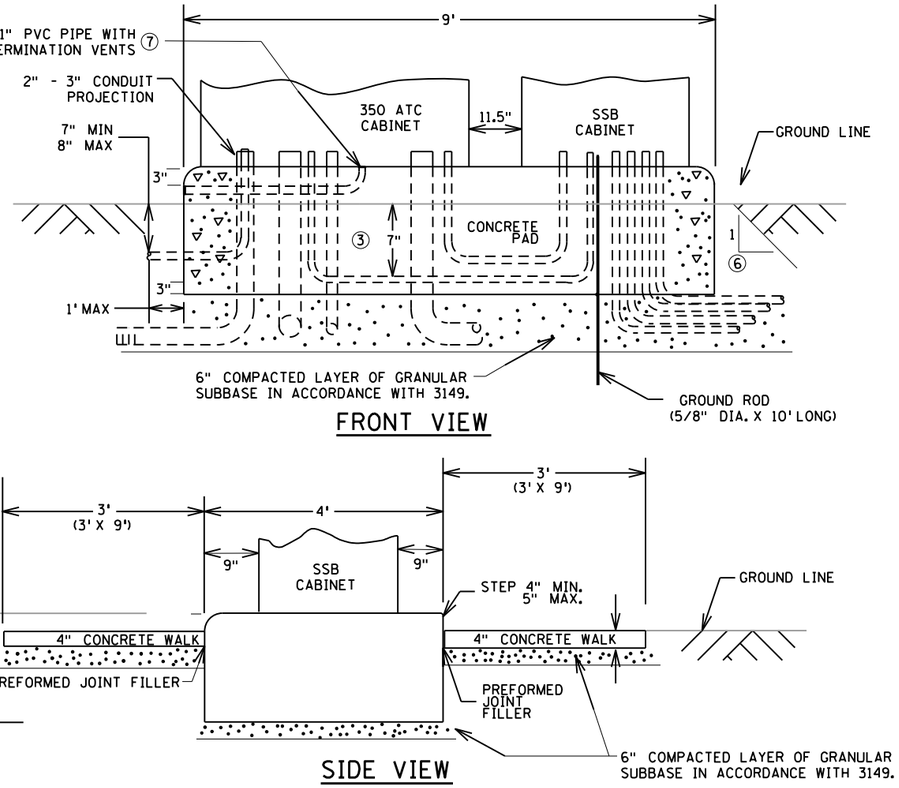
(SPEC. 3385 TYPE A OR TYPE B AND GALVANIZED IN ACCORDANCE WITH SPEC. 3392)



SSB CABINET BASE TEMPLATE



350 CABINET BASE TEMPLATE



FRONT VIEW

SIDE VIEW

T.H. 41 (CHESTNUT ST.) AT C.S.A.H. 61 (CHASKA BLVD.)
SIGNAL SYSTEM C - PAD DETAIL

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNAL PLAN

SHEET 316 OF 359

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SIGNAL HEAD CHART				
FACE	R	Y	FYA	G
1-1, 1-2	←	←	←	←
2-1, 2-2, 2-3	●	●		●
3-1, 3-2	←	←	←	←
4-1, 4-2, 4-3	●	●		●
5-1, 5-2, 5-3	←	←	←	←
6-1, 6-2, 6-3	●	●		●
7-1, 7-2	←	←	←	←
8-1, 8-2, 8-3	●	●		●

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW

VIDEO DETECTION CHART		
CAMERA NUMBER	LOCATION	PHASE
V-1	POLE 1	2+5
V-2	POLE 2	4+7
V-3	POLE 3	1+6
V-4	POLE 4	3+8

PED PB STATION
1-APS PB AND SIGN
(RT ARROW)(PB6-2)
EXTEND INTO HH4:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

INP. 2" NMC

ADJUST HANDHOLE

2" NMC TO INP. HH8
(EMPTY)

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB4-1)
EXTEND INTO HH4:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

3" CONDUIT:
3-6/C 14
5-4/C 14

3" CONDUIT:
1-3/C 14 (LUM)
1-3/C 14 (EVP)*
1-3/C 18 (VID)
1-3/C 20 (EVP)*
2-2/C 14
1-1/C 6 INS. GR.

INP. HH8

R/W

C.S.A.H. 61
(CHASKA BLVD)
POSTED SPEED
30 M.P.H.

11' 11' 11' 11' 11'

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB6-1)
EXTEND INTO HH5:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(RT ARROW)(PB8-2)
EXTEND INTO HH5:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

3+8 EVP*

SB T.H. 41 (CHESTNUT ST)
POSTED SPEED 30 M.P.H.

3" CONDUIT:
3-6/C 14
5-4/C 14

3" CONDUIT:
*1-3/C 14 (EVP)
*1-3/C 20 (EVP)
1-3/C 18 (VID)
2-2/C 14
1-1/C 6 INS. GR.

*2+5 EVP

1.5" NMC (SEE TMS PLAN)
1-FO CABLE (SEE TMS PLAN)

NB T.H. 41 (CHESTNUT ST)
POSTED SPEED 30 M.P.H.

115

*1+6 EVP

*4+7 EVP

C-302/303

1.5" NMC (SEE TMS PLAN)
1-FO CABLE (SEE TMS PLAN)

PED PB STATION
1-APS PB AND SIGN
(RT ARROW)(PB4-2)
EXTEND INTO HH3:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

3" CONDUIT:
3-6/C 14
5-4/C 14
1-3/C 14 (LUM)
1-3/C 14 (EVP)*
1-3/C 18 (VID)
1-3/C 20 (EVP)*
2-2/C 14
1-1/C 6 INS. GR.

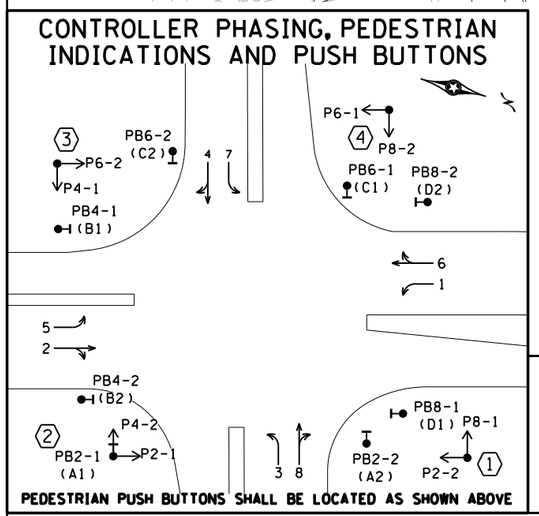
3" CONDUIT:
3-6/C 14
5-4/C 14
1-3/C 14 (LUM)
1-3/C 14 (EVP)*
1-3/C 18 (VID)
1-3/C 20 (EVP)*
2-2/C 14
1-1/C 6 INS. GR.
1-CAT-5E TRA MGMT

1.5" NMC (SEE TMS PLAN)
1-FO PIGTAIL (SEE TMS PLAN)

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB8-1)
EXTEND INTO HH6:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(RT ARROW)(PB2-2)
EXTEND INTO HH7:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5, AND 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

MATCHLINE: SEE SYSTEM D

NOTES:
1. SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
2. REFER TO "EXISTING SIGNAL PLAN" SHEETS FOR INPLACE SIGNAL COMPONENTS.
3. ENSURE THE EXACT LOCATION OF HANDHOLES, POLES AND EQUIPMENT PAD, ARE VERIFIED IN THE FIELD BY THE FIELD MNDOT PERSONNEL.
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
5. ALL SIGNAL MOUNTED SIGNS ARE INCLUDED IN THE LUMP SUM SIGNAL SYSTEM PAY ITEM. SEE SIGNING DETAIL SHEET.
6. PAVEMENT MARKINGS ARE INCLUDED AS PART OF STRIPING PLANS.
7. CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE INCLUDED AS PART OF THE ROADWAY PLAN. SEE THE INTERSECTION DETAILS, INCLUDED WITH THE ROADWAY PLAN, FOR INFORMATION.
8. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
9. USE PVC OR HDPE FOR ALL NEW CONDUIT.
10. CONDUIT SIZES ARE NOMINAL DIAMETER.
11. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE)
12. REMOVAL OF THE EXISTING SIGNAL IS INCLUDED IN PAYMENT FOR THE LUMP SUM SIGNAL SYSTEM PAY ITEM. REFER TO THE "EXISTING SIGNAL SHEETS FOR INPLACE SIGNAL SYSTEM COMPONENTS.
13. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM
14. ALL ITEMS REFERRING TO THE TMS PLAN ARE PAID FOR BY THE TMS PLAN.

T.H. 41 (CHESTNUT ST) AT C.S.A.H. 61 (CHASKA BLVD)
SIGNAL SYSTEM C - LAYOUT

SYSTEM ID: 4344815
TE: 49108
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SCALE 0 20 40 FEET

BOLTON & MENK
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BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
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REV.	BY	DATE

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Michael S. Larson
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 317 OF 359

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3/18/2022

INTERSECTION NOTES

(3) X: 542757.55
Y: 154504.85
PA100 POLE FOUNDATION
TYPE PA100-A-50-D40-9 (DAVIT AT 350 DEG)
1-PAIR SWING AWAY HINGES
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11' AND 22'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 1+6)
1-VIDEO DETECTION CAMERA (STATE FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT) (3)
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 1-1
2-SIGNS (CARVER 61 DBL)(CHASKA BLVD) (SEE SIGN DETAILS)
3" CONDUIT TO HH 4:
3-6/C 14
5-4/C 14
* 1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 18 (VID)
* 1-3/C 20 (EVP)
1-1/C 6 INS. GR.

(4) X: 542712.29
Y: 154619.61
PA100 POLE FOUNDATION
TYPE PA100-A-45
1-PAIR SWING AWAY HINGES
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 10' AND 21'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 3+8)
1-VIDEO DETECTION CAMERA (STATE FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 3-1
2-SIGNS (MN41 DBL)(CHESTNUT ST) (SEE SIGN DETAILS)
3" CONDUIT TO HH 5:
3-6/C 14
5-4/C 14
* 1-3/C 14 (EVP)
1-3/C 18 (VID)
* 1-3/C 20 (EVP)
1-1/C 6 INS. GR.

(2) X: 542869.14
Y: 154550.45
PA100 POLE FOUNDATION
TYPE PA100-A-50-X6-350/CAM 400 EXTENSION (MOUNTED AT 350 DEG)
(INCLUDES LIGHTING ROD, 7/16" GROUND BRAID AND GROUND ROD)
1-TRAFFIC MANAGEMENT CAMERA (STATE FURNISHED) WITH MOUNT
1-PAIR SWING AWAY HINGES
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11' AND 22'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
1-APS PB AND SIGN (LT ARROW) (PB2-1) AND APS POLE MOUNT ADAPTOR
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4+7)
1-VIDEO DETECTION CAMERA (STATE FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
LUMINAIRE-LED (FOR 35' MOUNTING HEIGHT) (2)
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 7-1
2-SIGNS (MN41 DBL)(CHESTNUT ST) (SEE SIGN DETAILS)
3" CONDUIT TO HH 3:
3-6/C 14
5-4/C 14
* 1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 18 (VID)
* 1-3/C 20 (EVP)
1-2/C 14
1-1/C 6 INS. GR.
1-CAT 5E TRA MGMT CAM
1-7/16" GROUNDING BRAID TO GROUND ROD IN HH3

(1) X: 542829.83
Y: 154676.16
PA100 POLE FOUNDATION
TYPE PA100-A-55-D30-9 (DAVIT AT 350 DEG)
1-PAIR SWING AWAY HINGES
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
3-STRAIGHT MOUNT SIGNAL OVERHEAD AT 10', 21', AND 32'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
* 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 2+5)
1-VIDEO DETECTION CAMERA (STATE FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
LUMINAIRE-LED (FOR 30' MOUNTING HEIGHT) (1)
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 5-2
2-SIGNS (CARVER 61 DBL)(CHASKA BLVD) (SEE SIGN DETAILS)
3" CONDUIT TO HH 6:
4-6/C 14
5-4/C 14
* 1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 18 (VID)
* 1-3/C 20 (EVP)
1-1/C 6 INS. GR.

(A) EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB) NO BATTERY BACKUP SYSTEM OR BATTERIES
CONTROLLER AND CABINET (STATE FURNISHED)

3" CONDUIT TO HH2:	3" CONDUIT TO HH7 TO HH6:
3-6/C 14	4-6/C 14
5-4/C 14	5-4/C 14
* 1-3/C 14 (EVP)	* 1-3/C 14 (EVP)
1-3/C 18 (VID)	1-3/C 18 (VID)
* 1-3/C 20 (EVP)	* 1-3/C 20 (EVP)
2-2/C 14	2-2/C 14
1-1/C 6 INS. GR.	1-1/C 6 INS. GR.

3" CONDUIT TO HH2:	3" CONDUIT TO HH7 TO HH6:
3-6/C 14	3-6/C 14
5-4/C 14	5-4/C 14
* 1-3/C 14 (EVP)	* 1-3/C 14 (EVP)
1-3/C 18 (VID)	1-3/C 18 (VID)
* 1-3/C 20 (EVP)	* 1-3/C 20 (EVP)
2-2/C 14	2-2/C 14

3" CONDUIT TO HH2:	3" CONDUIT TO HH7: (EMPTY)
1-CAT-5E TRA MGMT CAM	

GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD

1-3" CONDUIT STUBBED OUT (CAPPED ON BOTH ENDS)

1-1/2" CONDUIT TO TMS VAULT:
1-FO PIGTAIL (6-SM)(BY OTHERS, SEE TMS PLAN)

CONTROLLER CABINET TO SERVICE CABINET:
2" CONDUIT
3-1/C 6

CONTROLLER CABINET TO SERVICE CABINET (COMMS):
2" CONDUIT
1-6PR 19
SERVICE CABINET TO HH1 TO GROUND MOUNTED TRANSFORMER
2" CONDUIT
3-1/C 2

SERVICE CABINET TO HH2:
2" CONDUIT
3-3/C 14 (LUM)
HH2 TO HH7:
2" CONDUIT
1-3/C 14 (LUM)
SERVICE CABINET TO EXTERNAL GR.RD.:
1" CONDUIT
1-1/C 6 INS. GR.
(SEE EQUIPMENT PAD LAYOUT)

(B) INP SOP
CITY OF CHASKA ELECTRIC
DISCONNECT SWITCH
1 1/4" RSC RISER WITH WHEATHERHEAD
ABOVE DISCONNECT SWITCH
3-1/C 2
2 NMC RISER AND CONDUIT
BELOW DISCONNECT TO HH 1
3-1/C 2
HH1 TO SERVICE CABINET
2" CONDUIT
3-1/C 2

T.H. 41 (CHESTNUT ST) AT C.S.A.H. 61 (CHASKA BLVD)
SIGNAL SYSTEM C - INTERSECTION NOTES

SYSTEM ID: 4344815
TE: 49108
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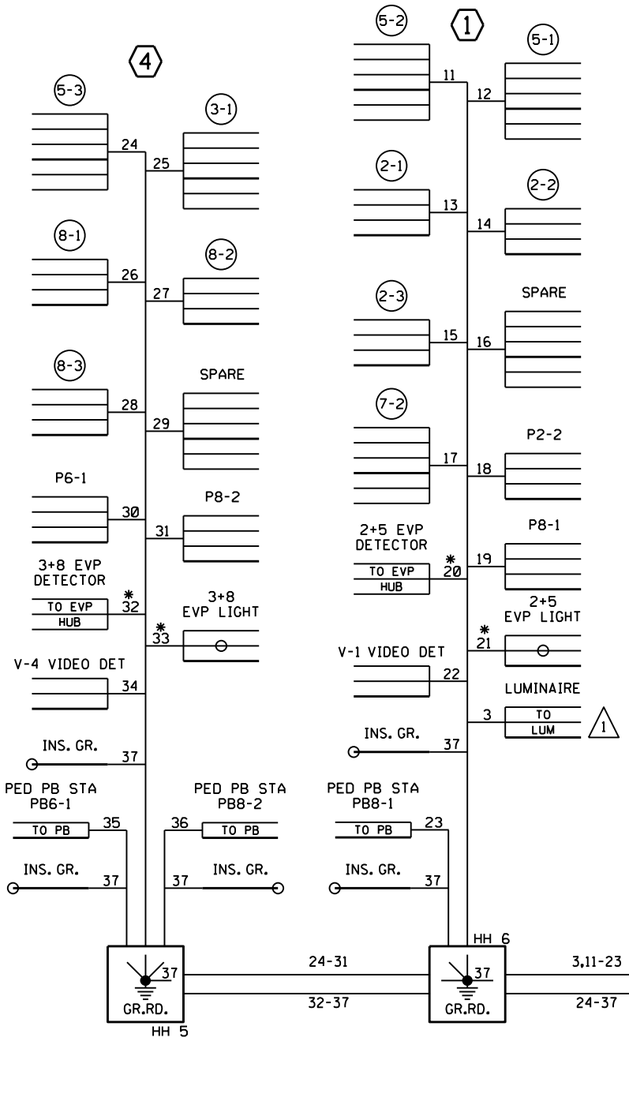
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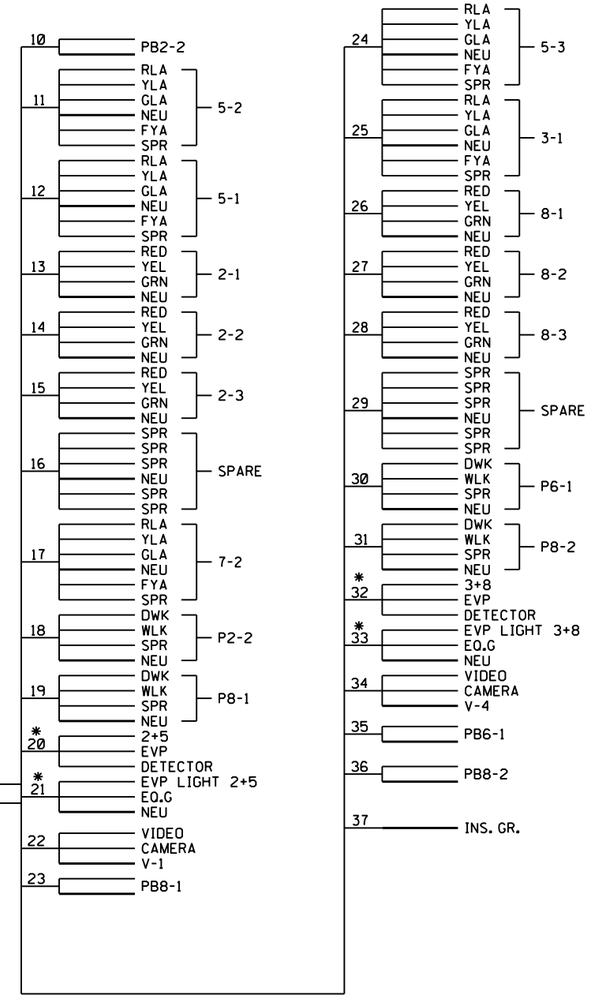
DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 318 OF 359

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combo





TO TMS VAULT
1-FO CABLE (6-SM)
(BY OTHERS)
** 90
** 90
FIBER OPTIC PIGTAIL

NOTES:
1. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
2. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET WITHOUT BATTERY BACKUP SYSTEM OR BATTERIES.
3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
4. ITEMS DENOTED WITH A * ARE INCLUDED IN THE PAYMENT FOR THE EVP SYSTEM PAY ITEM.
5. ITEMS DENOTED WITH AN ** ARE DETAILED AND PAID FOR IN THE TMS PLAN.
6. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.
7. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.

T.H. 41 (CHESTNUT ST) AT C.S.A.H. 61 (CHASKA BLVD)
SIGNAL SYSTEM C - FIELD WIRING DIAGRAM (1 OF 2)

SYSTEM ID: 4344815
TE: 49108

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SIGNAL PLAN

SHEET 319 OF 359

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CONTROLLER CABINET

SERVICE CABINET

CABINET COMMS 1-6PR 19 93 → 93 1-6PR 19 CABINET COMMS

SIGNAL SERVICE 3-1/C 6 2 → 2 3-1/C 6 SIGNAL SERVICE

INPUT POWER 3-1/C 2 → 1

NOT USED — 4 — 6

LUMINAIRE — 3 — 5

LUMINAIRE — 2 — 4

LUMINAIRE — 1 — 3

3-5

HH 1 — S.O.P.

1-1/C 6 INS. GR. — GR.RD.

GR.RD.

1-1 RLA YLA GLA NEU FYA SPR — 51

3-2 RLA YLA GLA NEU FYA SPR — 52

6-1 RED YEL GRN NEU — 53

6-2 RED YEL GRN NEU — 54

6-3 RED YEL GRN NEU — 55

SPARE SPR SPR SPR SPR NEU SPR — 56

P4-1 DWK WLK SPR NEU — 57

P6-2 DWK WLK SPR NEU — 58

1+6 EVP DETECTOR — * 59

1+6 EVP LIGHT — * 60

EQ.G NEU

VIDEO CAMERA V-3 — 61

PB4-1 — 62

PB6-2 — 63

INS. GR. — 64

TRA MGMT CAM CAT 5E — 95

7-1 RLA YLA GLA NEU FYA SPR — 38

1-2 RLA YLA GLA NEU FYA SPR — 39

4-1 RED YEL GRN NEU — 40

4-2 RED YEL GRN NEU — 41

4-3 RED YEL GRN NEU — 42

SPARE SPR SPR SPR NEU SPR SPR — 43

P2-1 DWK WLK SPR NEU — 44

P4-2 DWK WLK SPR NEU — 45

4+7 EVP DETECTOR — * 46

4+7 EVP LIGHT — * 47

EQ.G NEU

PB2-1 — 48

VIDEO CAMERA V-2 — 49

PB4-2 — 50

38-50
51-64
95

TO HH 7 ← 3

HH 2

4,38-50
5,51-64,95

HH 3

51-58
59-64

HH 4

HH 8

2

7-1 — 38 — 1-2

4-1 — 40 — 4-2

4-3 — 42 — SPARE

P2-1 — 44 — P4-2

4+7 EVP DETECTOR — TO EVP HUB — * 46 — * 47 — 4+7 EVP LIGHT

PED PB PB2-1 — TO PB — 48

TRA MGMT CAM CAT 5E — 95

V-2 VIDEO DET — 49

7/16 BR. GR.

INS. GR. — 64

LUMINAIRE — 4 TO LUM — 2

PED PB STA PB4-2 — TO PB — 50

INS. GR. — 64

3

1-1 — 51 — 3-2

6-1 — 53 — 6-2

6-3 — 55 — SPARE

P4-1 — 57 — P6-2

1+6 EVP DETECTOR — TO EVP HUB — * 59

1+6 EVP LIGHT — * 60

V-3 VIDEO DET — 61

INS. GR. — 64

LUMINAIRE — 5 TO LUM — 3

PED PB STA PB4-1 — TO PB — 62

INS. GR. — 64

PED PB STA PB6-2 — 63 — TO PB

INS. GR. — 64

GR.RD.

GR.RD.

NOTES:

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5. ITEMS DENOTED WITH AN ** ARE DETAILED AND PAID FOR IN THE TMS PLAN.
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T.H. 41 (CHESTNUT ST) AT C.S.A.H. 61 (CHASKA BLVD)
SIGNAL SYSTEM C - FIELD WIRING DIAGRAM (2 OF 2)

SYSTEM ID: 4344815
TE: 49108

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

SIGNAL PLAN

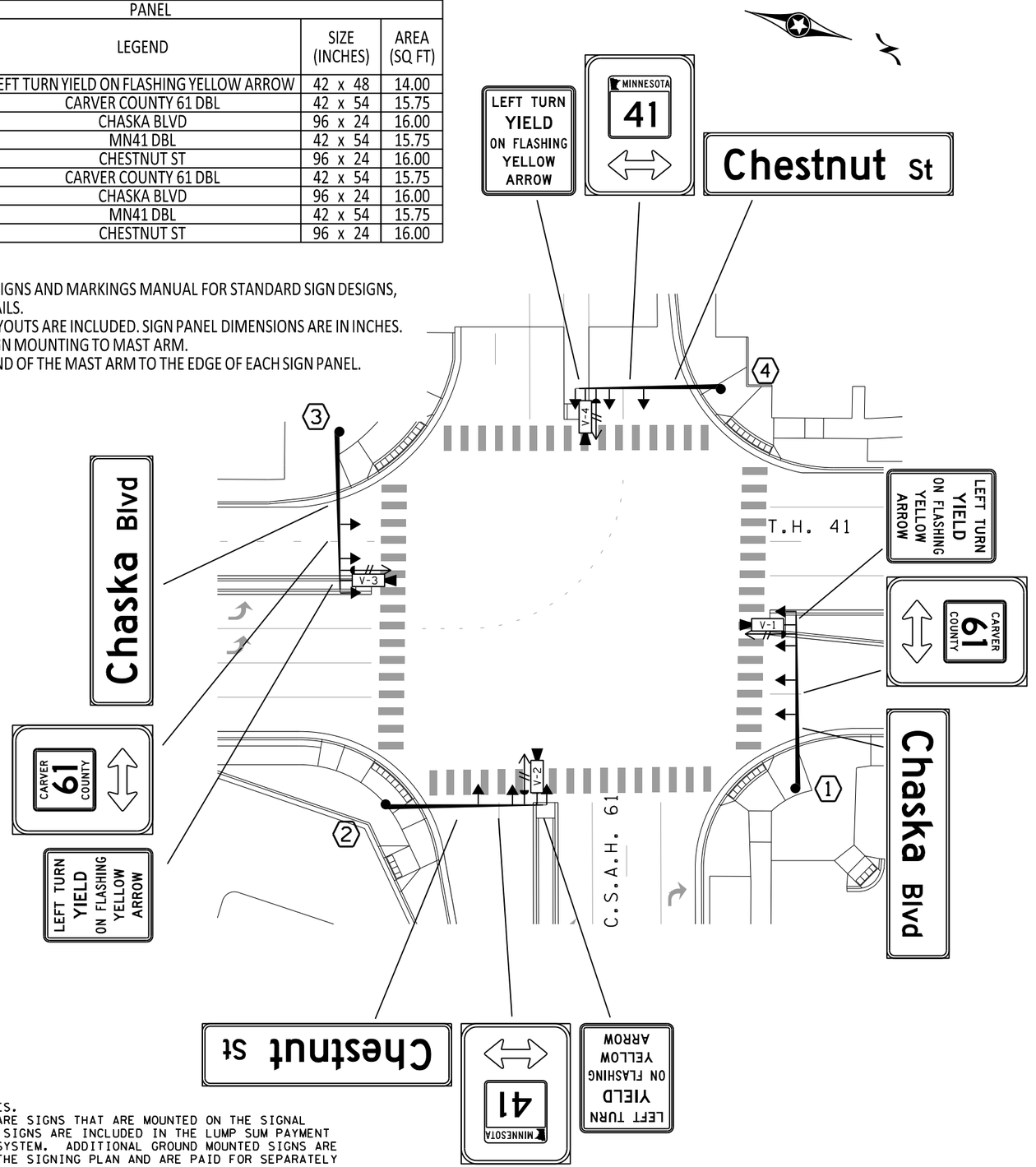
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SIGN PANELS ON SIGNALS

POLE NUMBER	"A" DISTANCE (FEET) OR POLE	PANEL				
		QTY	CODE NUMBER	LEGEND	SIZE (INCHES)	AREA (SQ FT)
1,2,3,4	0	4	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	42 x 48	14.00
1	24	1		CARVER COUNTY 61 DBL	42 x 54	15.75
1	35	1		CHASKA BLVD	96 x 24	16.00
2	14	1		MN41 DBL	42 x 54	15.75
2	26	1		CHESTNUT ST	96 x 24	16.00
3	14	1		CARVER COUNTY 61 DBL	42 x 54	15.75
3	25	1		CHASKA BLVD	96 x 24	16.00
4	14	1		MN41 DBL	42 x 54	15.75
4	25	1		CHESTNUT ST	96 x 24	16.00

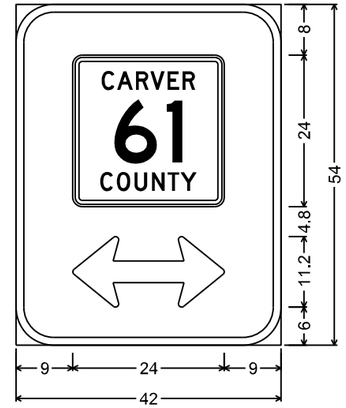
GENERAL NOTE(S):
1. SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, ARROW DETAILS AND SPLICE PLATE DETAILS.
2. FOR NON STANDARD SIGN DESIGNS, LAYOUTS ARE INCLUDED. SIGN PANEL DIMENSIONS ARE IN INCHES.
3. SEE STANDARD PLAN 5-297.731 FOR SIGN MOUNTING TO MAST ARM.
4. "A" DISTANCE = DISTANCE FROM THE END OF THE MAST ARM TO THE EDGE OF EACH SIGN PANEL.



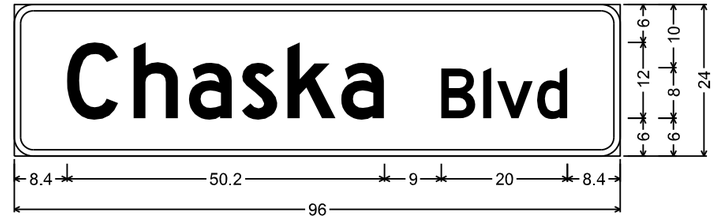
NOTES:
1. ALL SIGN DIMENSIONS ARE IN INCHES.
2. THE SIGNS ON THIS DETAIL SHEET ARE SIGNS THAT ARE MOUNTED ON THE SIGNAL MAST ARM OR SIGNAL POLES. THESE SIGNS ARE INCLUDED IN THE LUMP SUM PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM. ADDITIONAL GROUND MOUNTED SIGNS ARE REQUIRED AND ARE INCLUDED WITH THE SIGNING PLAN AND ARE PAID FOR SEPARATELY AS INDICATED WITH THE SIGNING PLAN.



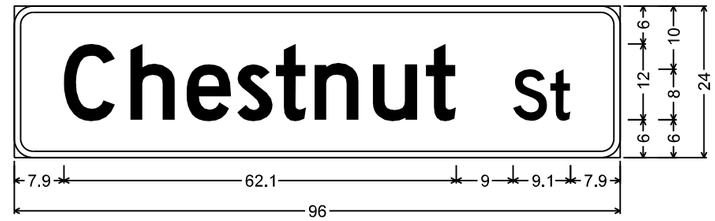
6.0" Radius, 1.3" Border, White on Green;
State Highway 41 M1-5M;
Double Headed Arrow 5 - 24.0" 0°;



6.0" Radius, 1.3" Border, White on Green;
Double Headed Arrow 5 - 24.0" 0°;

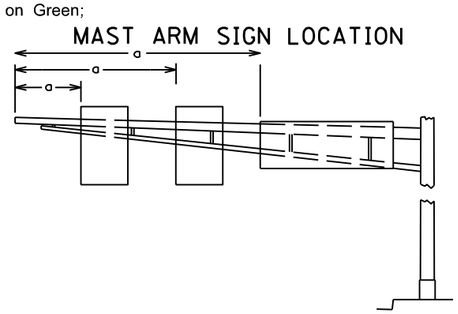


Chaska Blvd;
3.0" Radius, 1.0" Border, White on Green;
"Chaska Blvd", D 2K;



Chestnut St;
3.0" Radius, 1.0" Border, White on Green;
"Chestnut St", D 2K;

MAST ARM SIGN LOCATION



T.H. 41 (CHESTNUT ST) AT C.S.A.H. 61 (CHASKA BLVD)
SIGNAL SYSTEM C - MAST ARM SIGN DETAILS

BOLTON & MENK
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SIGNAL PLAN

SHEET 321 OF 359

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PVC LOOP DETECTOR CHART			
NUMBER	SIZE	LOCATION	
D1-1, ~~D5-1~~	6X20	5	◄ REMOVE D5-1
~~D2-1~~, D6-1	6X6	180	◄ REMOVE D2-1
D3-1	6X20	5	
D4-1, D4-2	6X6	180	
D8-1	2-6X6	180	
D8-2	2-6X6	0 & 20	
D8-3	6X6	9	
D4-3	2-6X6	3 & 6	
D4-4	6X6	5	
D6-2	6X6	0	
D6-3, D6-4	6X6	10	
D7-1	6X20	5	
D2-1,D2-2	6X6	180	◄ F&I
D2-3,D2-4	2-6X6	5 & 20	◄ F&I
D5-1	2-6X6	5 & 35	◄ F&I
D5-2	2-6X6	20 & 50	◄ F&I

-LOCATION: DISTANCE FROM CROSSWALK /STOP BAR IN FEET

MATCHLINE B

T.H. 41 (CHESTNUT ST.)

4" RSC
4-12/C #12
8-3/C #12
1-3/C #12 (LUM)
7-2/C #14
2-3/C #20
REMOVE ► 4-2/C #14
F&I ► 6-2/C #14
F&I ► 1-6PR #19

2" PVC
2-2-/C #14

3" RSC
2-12/C #12
4-3/C #12
1-3/C #12 (LUM)
4-2/C #14
1-3/C #20
REMOVE ► 4-2/C #14
F&I ► 6-2/C #14
F&I ► 1-6PR #19

F&I ► 4" NMC
PULL BACK AND RE-INSTALL EXISTING WIRE FROM HH9 TO HH12
2-12/C #12
4-3/C #12
1-3/C #12 (LUM)
4-2/C #14
1-3/C #20
REMOVE ► 4-2/C #14
F&I ► 6-2/C #14
F&I ► 1-6PR #19

C.S.A.H. 61 (6TH ST)

MATCHLINE A
(SEE TRAFFIC CONTROL SYSTEM A)

D2-2 ◄ F&I
D2-1 ◄ F&I
F&I ► D5-2
F&I ► D2-4
F&I ► D2-3
F&I ► 11
F&I ► 10
F&I ► 9
F&I ► 18
F&I ► D5-1
6+1 EVP
8+3 EVP
4+7 EVP
2+5 EVP

2" NMC ◄ F&I
1-6PR #19 ◄ F&I

2" NMC ◄ F&I
2-2/C #14 ◄ F&I
1-6PR #19 ◄ F&I

TRAFFIC CONTROL SIGNAL SYSTEM A
SOURCE OF POWER

D4-3
D4-4
D7-1
D8-3
D8-2
D3-1
D6-2
D6-3
D6-4
D1-1
D6-1

D2-1 (WALNUT ST.)
D2-2 (WALNUT ST.)

R/W

3" RSC
2-12/C #12
4-3/C #12
1-3/C #12 (LUM)
5-2/C #14
1-3/C #20
1-6PR #19

3" PVC
1-2/C #14 (TH 41/CHESTNUT ST.)
2-2/C #14 (WALNUT ST.)
1-6PR #19

1 1/2" RSC
1-3/C #12
4-2/C #14

3" RSC
2-12/C #12
4-3/C #12
1-3/C #12 (LUM)
4-2/C #14
1-3/C #20

2" PVC
1-3/C #12
1-2/C #14

T.H. 41 (CHESTNUT ST.)

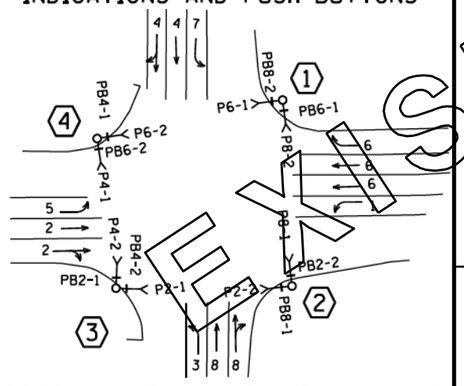
C.S.A.H. 61 (6TH ST)

MATCHLINE C

SIGNAL HEAD PHASING	
HEADS 2-3 & 2-4	HEADS 6-3 & 6-4
R, Y, G, Y, G	2, 6, 5, 1

SIGNAL HEAD PHASING	
HEADS 4-3 & 4-4	HEADS 8-3 & 8-4
R, Y, G, Y, G	4, 8, 7, 3

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

SYTEM ID: 21603

SIGNAL SYSTEM OPERATION

- FLASH MODE IS ALL RED
- NORMAL OPERATION IS EIGHT PHASE
- PHASES ONE, THREE, FIVE, AND SEVEN SHALL BE PROTECTED/PERMISSIVE LEFT TURNS PHASES TWO AND SIX SHALL BE ON VEHICLE RECALL

SIGNAL FACE CHART					
FACE	R	Y	G	Y	G
2-1, 2-2, 6-1, 6-2	○	○	○		
2-3, 6-3, 6-4	○	○	○	◁	◁
4-1, 4-2	○	○	○		
8-1, 8-2	○	○	○		
4-3, 4-4, 8-4	○	○	○	◁	◁
2-4, 8-3	○	○	○	◁	◁
F&I ► 2-5, 6-5	●	●	●		

-ALL SIGNAL INDICATIONS SHALL BE 12"
-ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD

EXISTING SIGNAL PLAN

T.H. 41 (CHESTNUT ST.) AT C.S.A.H. 61 (CHASKA BLVD.)
SIGNAL SYSTEM C - EXISTING SIGNAL PLAN

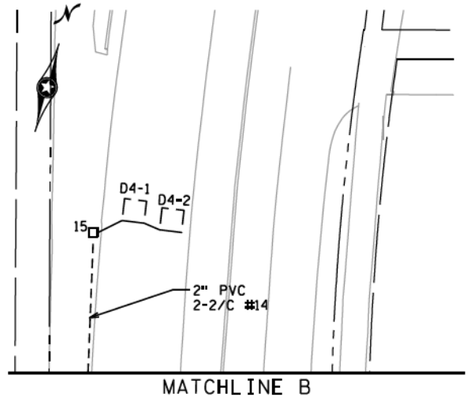
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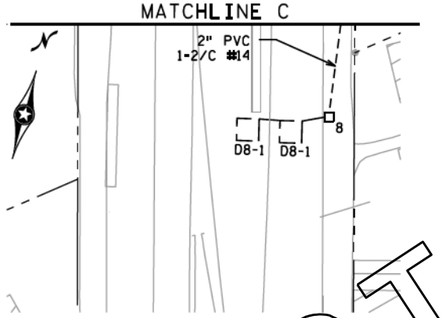
REV.	BY	DATE

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 322 OF 359



MATCHLINE B



(1) A100 POLE FOUNDATION
TYPE PA100-A-50-D40-9 (DAVIT AT 355°)
2-ONE WAY SIGNALS OVERHEAD
2-SWING AWAY HINGES
2-TYPE 10B AT 90° AND 180°
ONE WAY EVP DETECTOR AND CONFIRMATORY
LIGHT PHASE 8
LUMINAIRE - 200 W HPS
RADIO INTERCONNECT ANTENNA
2-PEDESTRIAN PUSH BUTTON AND SIGNS
1-TYPE D SIGN
1-R10-12 SIGN
3" RSC TO HH 1
2-12/C #12
4-3/C #12
1-3/C #12 (LUM)
1-3/C # 20
1-COAXIAL CABLE

(2) P100 POLE FOUNDATION
TYPE P100-A-40-D40-9 (DAVIT AT 350°)
2-ONE WAY SIGNALS OVERHEAD
F&I ► 1-ONE WAY SIGNAL OVERHEAD AT 22 FT
FROM END OF MAST ARM (HEAD 2-5)
2-SWING AWAY HINGES
2-TYPE 10B AT 0° AND 270°
ONE WAY EVP DETECTOR AND CONFIRMATORY
LIGHT PHASE 2 + 5
LUMINAIRE 200 W HPS
2-PEDESTRIAN PUSH BUTTONS AND SIGNS
1-TYPE D SIGN "TH 41"
RELOCATE 8 FT SOUTH TO AVOID F&I SIGNAL HEAD 2-5 ► 1-TYPE D SIGN "CHESTNUT ST"
1-R10-12 SIGN
3" RSC TO HH 3
2-12/C #12
4-3/C #12
1-3/C #12 (LUM)
1-3/C #20

(3) A100 POLE FOUNDATION
TYPE A100-A-35-D40-9 (DAVIT AT 355°)
2-ONE WAY SIGNALS OVERHEAD
2-SWING AWAY HINGES
2-TYPE 10B AT 0° AND 270°
ONE WAY EVP DETECTOR AND CONFIRMATORY
LIGHT PHASE 4
LUMINAIRE 200 W HPS (PLUG HOLE)
2-PEDESTRIAN PUSH BUTTONS AND SIGNS
1-TYPE D SIGN
1-R10-12 SIGN
REMOVE ► 3" RSC TO HH 9
F&I ► 3" NMC TO HH 9
2-12/C #12
4-3/C #12
1-3/C #12 (LUM)
1-3/C #20

(4) P100 POLE FOUNDATION
TYPE P100-A-35
2-ONE WAY SIGNALS OVERHEAD
F&I ► 1-ONE WAY SIGNAL OVERHEAD AT 21 FT
FROM END OF MAST ARM (HEAD 6-5)
2-SWING AWAY HINGES
2-TYPE 10B AT 0° AND 270°
ONE WAY EVP DETECTOR AND CONFIRMATORY
LIGHT PHASE 6 + 1
2-PEDESTRIAN PUSH BUTTONS AND SIGNS
1-TYPE D SIGN "TH 41"
RELOCATE 8 FT NORTH TO AVOID F&I SIGNAL HEAD 6-5 ► 1-TYPE D SIGN "CHESTNUT ST"
1-R10-12 SIGN
3" RSC TO HH 9
2-12/C #12
4-3/C #12
1-3/C #20

(A) EQUIPMENT PAD
CONTROLLER CABINET AND CONTROLLER
SERVICE CABINET
CONTROLLER CABINET TO HH 2
4" RSC
4-12/C #12
9-3/C #12
2-3/C #12 (LUM)
9-2/C #14
2-3/C #20
1-6PR #19

CONTROLLER TO HH 16
4" RSC
4-12/C #12
8-3/C #12
1-3/C #12 (LUM)
9-3/C #14
2-3/C #20
1-6pr #19
REMOVE ► 4-2/C #14
F&I ► 6-2/C #14
F&I ► 1-6PR #19
CONTROLLER CABINET TO SERVICE CABINET
2" RSC
2-1/C #6
1-1/C #6 INS. GRD.
SERVICE CABINET TO HH 2
2" RSC
1-3/C #12
SERVICE CABINET TO HH 16
2" RSC
2-3/C #12

(B) SOP
CITY OF CHASKA ELECTRIC DEPARMENT
DISCONNECT SWICH
1 1/4" RSC RISER WITH WEATHERHEAD
ABOVE DISCONNECT SWITCH
3-1/C #2
1 1/4" RSC RISER AND CONDUIT
BELOW DISCONNECT TO HH 1
3-1/C #2
HH 1 TO SERVICE CABINET
1 1/4" RSC
3-1/C #2

EXISTING SIGNAL PLAN

T.H. 41 (CHESTNUT ST.) AT C.S.A.H. 61 (CHASKA BLVD.)
SIGNAL SYSTEM C - EXISTING SIGNAL PLAN

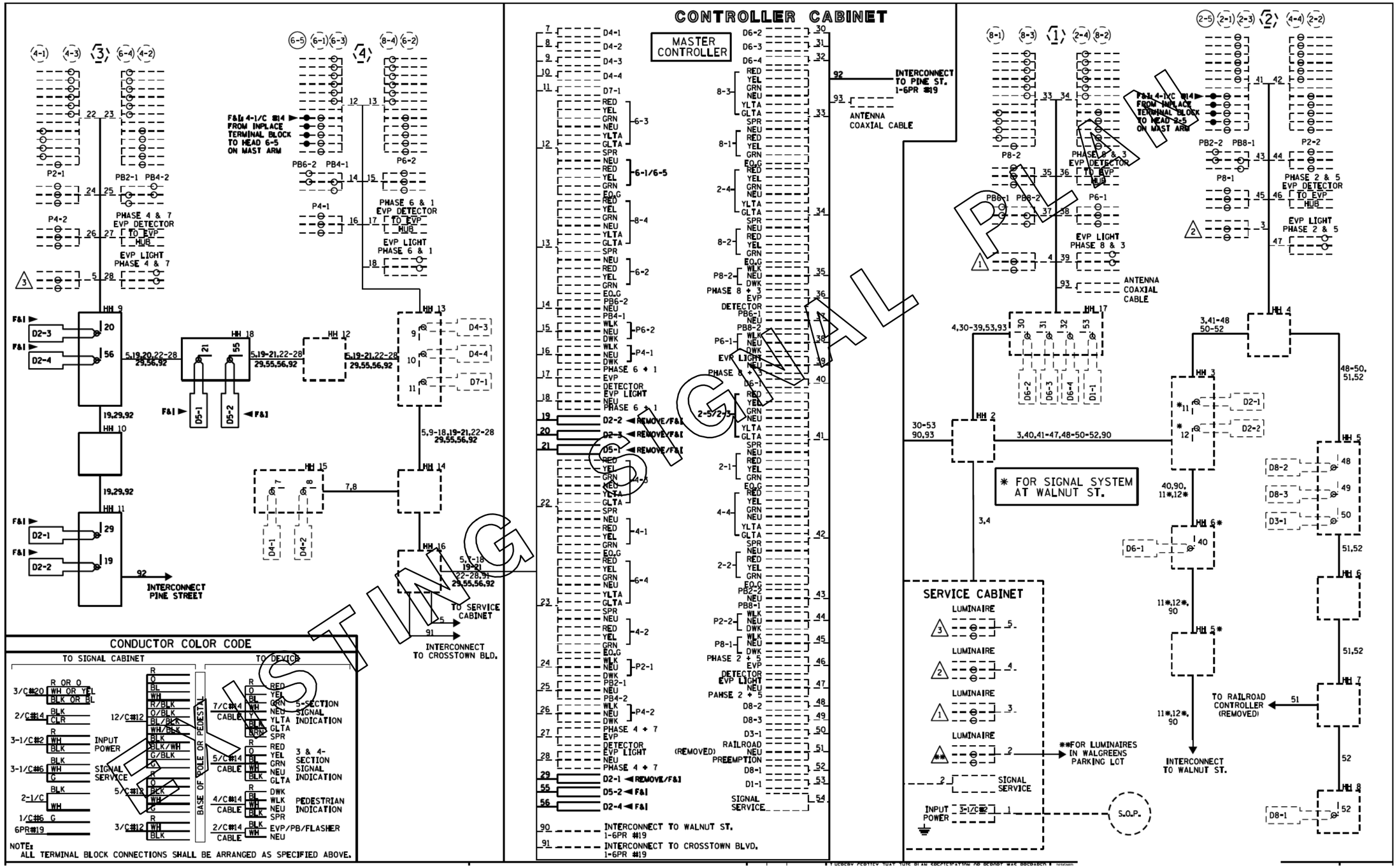
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 323 OF 359

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T.H. 41 (CHESTNUT ST.) AT C.S.A.H. 61 (CHASKA BLVD.)
SIGNAL SYSTEM C - EXISTING SIGNAL PLAN

EXISTING
SIGNAL PLAN

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REV.	BY	DATE

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

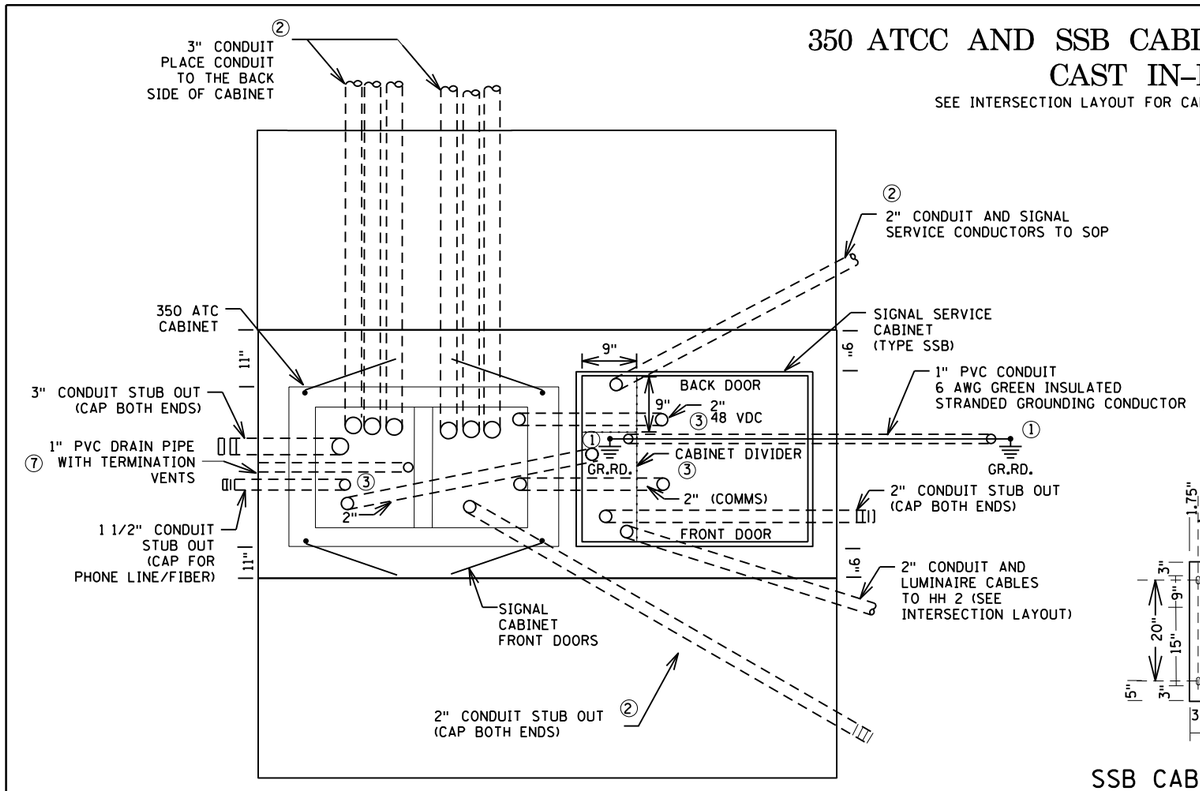
SHEET 324 OF 359

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350 ATCC AND SSB CABINET EQUIPMENT PAD
CAST IN-PLACE

SEE INTERSECTION LAYOUT FOR CABLE INFORMATION (NOT TO SCALE)



PLAN VIEW

NOTES:

FOR THE EQUIPMENT PAD USE CONCRETE MIX 3G52 WITH APPROVED MACRO NON-METALLIC FIBERS FOR REINFORCEMENT LISTED ON MnDOT'S APPROVED/QUALIFIED PRODUCTS LIST UNDER CONCRETE "NONMETALLIC FIBERS (BRIDGE APPLICATIONS)". ADD FIBERS TO THE CONCRETE MIX IN ACCORDANCE WITH THE NON-METALIIC FIBERS MANUFACTURERS INSTRUCTIONS AND CONTRACT DOCUMENTS.

FOR CONCRETE WALK USE CONCRETE MIX 3G52. 3G52 CONCRETE MIX WITH NON-METALLIC FIBERS MAY BE USED FOR THE CONCRETE WALK AND POLE FOUNDATIONS. DO NOT USE NON-METALLIC FIBERS AS A SUBSTITUTE FOR THE REQUIRED REINFORCEMENT IN ACCORDANCE WITH THE POLE FOUNDATION STANDARD PLATES.

① PLACE A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH THE GROUNDING ELECTRODE SYSTEM DETAIL ON SHEET 3 OF STANDARD PLATE NUMBER 8106 EXCEPT FURNISH AND INSTALL 10 FOOT LONG GROUND ROD ELECTRODES, 6 AWG GREEN INSULATED COPPER CONDUCTOR AND EXOTHERMIC WELDED CONNECTIONS.

② CONDUIT SIZE, QUANTITY AND DIRECTION MAY VARY. FURNISH AND INSTALL CONDUITS AS SPECIFIED ON THE INTERSECTION LAYOUT PLAN SHEET.

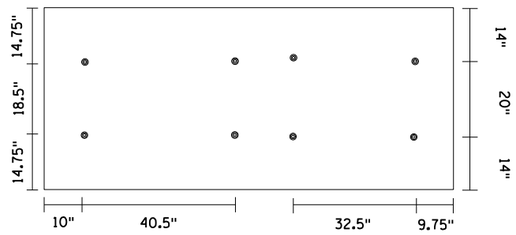
③ ENSURE THE CONDUITS FULLY ENCASED IN CONCRETE FROM ONE CABINET TO THE OTHER ARE PLACED AT THE CORRECT DEPTH AND LOCATION TO AVOID INTERFERENCE WITH THE INSTALLATION OF THE ANCHOR RODS.

④ USE TEMPLATES WITH THE DIMENSIONS SHOWN INCLUDING OPENINGS, DIVIDERS, ANCHOR ROD HOLES AS A GUIDE TO ENSURE PROPER PLACEMENT OF THE CABINETS, CONDUITS AND ANCHOR RODS. 350 BASE OPENINGS FOR TEMPLATE ARE SMALLER THAN THE ACTUAL BASE OPENINGS.

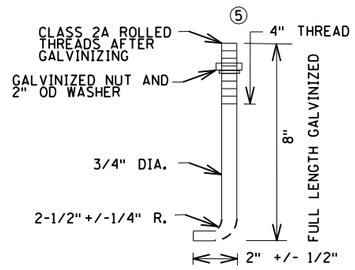
⑤ PLACE ANCHORS 1 3/4 INCHES - 2 1/4 INCHES ANCHOR ROD PROJECTION ABOVE THE CONCRETE PAD. FURNISH AND INSTALL ANCHOR RODS SHOWN IN THE ANCHOR ROD DETAIL FOR WET CASTING ANCHORS IN WET CONCRETE. FURNISH AND INSTALL ANCHOR RODS SHOWN IN THE ANCHOR ROD DETAIL FOR EPOXY ADHESIVE IF USING ADHESIVE ANCHORS. INSERT ANCHOR RODS IN 7/8 INCH DIAMETER DRILLED HOLES,5 INCHES DEEP WITH AN APPROVED EPOXY ADHESIVE LISTED ON MnDOT'S APPROVED/QUALIFIED PRODUCTS LIST (ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON BASE ADHESIVE ANCHORING). DO NOT USE MECHANICAL OR CONCRETE WEDGE ANCHORS.

⑥ IF THE SITE CONDITIONS REQUIRE THE PAD TO BE PLACED WITHIN A SLOPE, INCREASE THE THICKNESS OF THE PAD BY 6 INCHES. SHAPE THE TERRAIN AROUND THE PAD FOR POSITIVE DRAINAGE.

⑦ FURNISH AND INSTALL A DRAIN IN THE PAD USING 1 INCH PVC SCH. 40 PIPE FOR PLUMBING. PLACE PVC TERMINATION VENT SCREEN DESIGNED FOR PVC PIPE AT EACH END OF THE PIPE. PROVIDE PVC TERMINATION VENTS WITH A STAINLESS STEEL SCREEN. ENSURE THE TERMINATION VENT SCREEN AND PIPE ARE FLUSH WITH THE TOP AND SIDE OF THE PAD AND PROTECT FROM CONCRETE INTRUSION BEFORE CONCRETE PLACEMENT OPERATIONS.

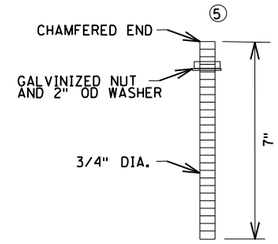


ANCHOR ROD LOCATION DETAIL



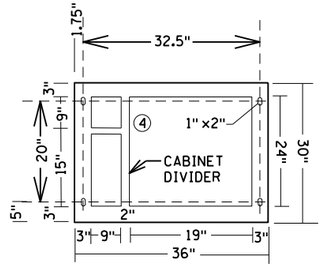
WET CAST ANCHOR ROD DETAIL

(SPEC. 3385 TYPE A OR TYPE B AND GALVANIZED IN ACCORDANCE WITH SPEC. 3392)

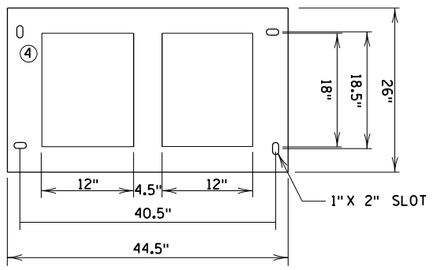


EPOXY ADHESIVE ANCHOR ROD DETAIL

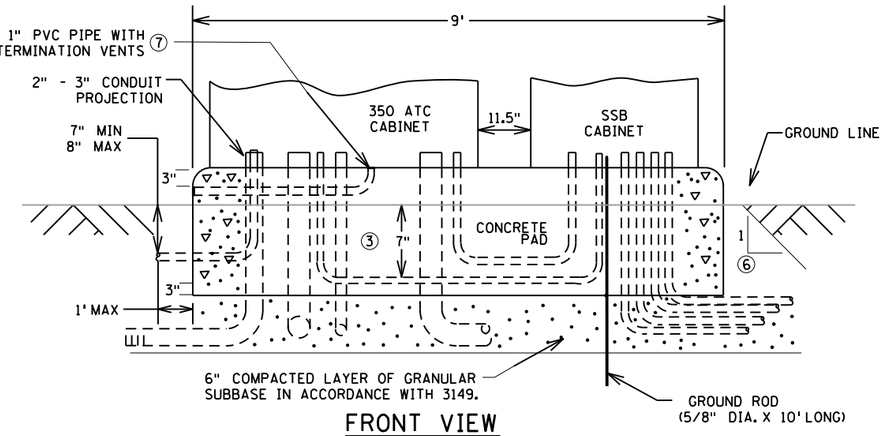
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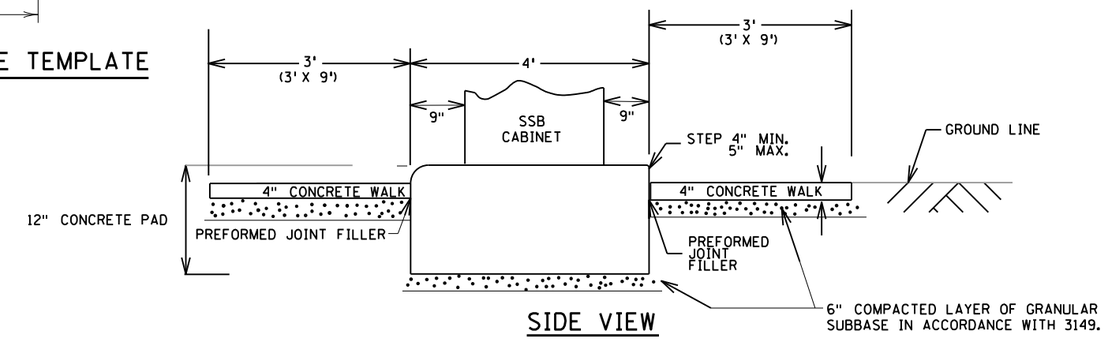
SSB CABINET BASE TEMPLATE



350 CABINET BASE TEMPLATE



FRONT VIEW



SIDE VIEW

C.S.A.H. 61 (CHASKA BLVD) AT WALNUT ST
SIGNAL SYSTEM D - PAD DETAIL

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REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 325 OF 359

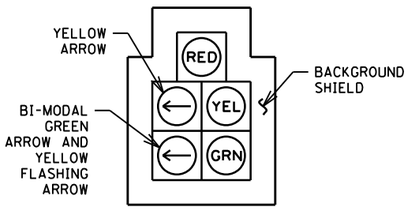
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SIGNAL HEAD CHART

FACE	R	Y	FYA	G	Y	G
1-1, 1-2	←	←	←	←		
2-1, 2-2, 2-3	●	●		●		
4-1	●	●		●		
4-2, 4-3	●	●	←	●	←	←
5-1, 5-2	←	←	←	←		
6-1, 6-2, 6-3	●	●		●		
8-1	●	●		●		
8-2, 8-3	●	●	←	●	←	←

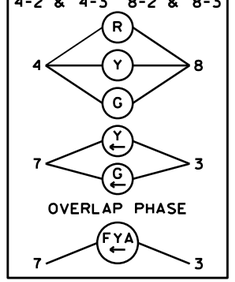
-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH YELLOW DIAMOND GRADE REFLECTORIZED BACKGROUND SHIELDS
-FYA DENOTES FLASHING YELLOW ARROW

5 SECTION FYA CLUSTER HEAD DETAIL



HEADS
4-2, 4-3, 8-2 & 8-3

SIGNAL HEAD PHASING



VIDEO DETECTION CHART

CAMERA NUMBER	LOCATION	PHASE
V-1	POLE 1	2+5
V-2	POLE 3	4+7
V-3	POLE 4	1+6
V-4	POLE 5	3+8

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB4-1)
EXTEND INTO HH4:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(RT ARROW)(PB6-2)
EXTEND INTO HH4:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

3" CONDUIT:
2-6/C 14
7-4/C 14
1-3/C 14 (LUM)
1-3/C 14 (EVP)*
1-3/C 18 (VID)
1-3/C 20 (EVP)*
2-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB6-1)
EXTEND INTO HH5:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

3" CONDUIT:
2-6/C 14
5-4/C 14
1-3/C 14 (LUM)
*1-3/C 14 (EVP)
1-3/C 18 (VID)
*1-3/C 20 (EVP)
2-2/C 14

3" CONDUIT:
2-6/C 14
7-4/C 14
1-3/C 14 (LUM)
*1-3/C 14 (EVP)
1-3/C 18 (VID)
*1-3/C 20 (EVP)
2-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(RT ARROW)(PB8-2)
EXTEND INTO HH5:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

WALNUT ST
POSTED SPEED
30 M.P.H.

R/W

MATCHLINE: SEE SYSTEM C

EB C.S.A.H. 61
(CHASKA BLVD)
POSTED 30 M.P.H.

WB C.S.A.H. 61
(CHASKA BLVD)
POSTED SPEED 30 M.P.H.

*1+6 EVP
*3+8 EVP
*4+7 EVP
* 2+5 EVP

PED PB STATION
1-APS PB AND SIGN
(RT ARROW)(PB4-2)
EXTEND INTO HH3:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(BIDIRECTIONAL ARROW)(PB8-3)
EXTEND INTO HH6:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB8-1)
EXTEND INTO HH2:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

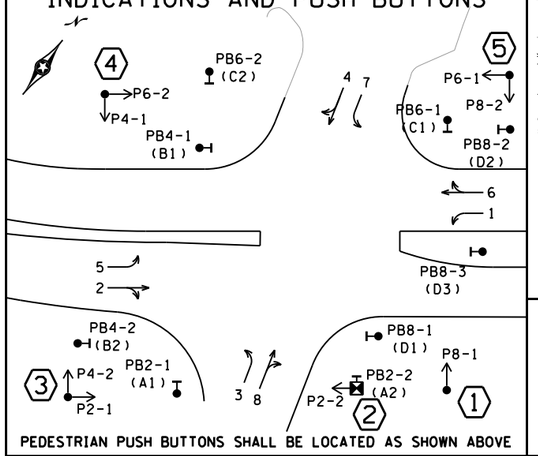
3" CONDUIT:
2-6/C 14
5-4/C 14
*1-3/C 14 (EVP)
1-3/C 18 (VID)
*1-3/C 20 (EVP)
2-2/C 14
1-1/C 6 INS. GR.

3" CONDUIT:
2-6/C 14
5-4/C 14
1-3/C 14 (LUM)
*1-3/C 14 (EVP)
1-3/C 18 (VID)
*1-3/C 20 (EVP)
3-2/C 14

3" CONDUIT:
2-6/C 14
7-4/C 14
1-3/C 14 (LUM)
*1-3/C 14 (EVP)
1-3/C 18 (VID)
*1-3/C 20 (EVP)
2-2/C 14
1-1/C 6 INS. GR.

PED PB STATION
1-APS PB AND SIGN
(LT ARROW)(PB2-1)
EXTEND INTO HH3:
1" NOM. DIA. CONDUIT
1-2/C 14
1-1/C 6 INS. GR.

CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1, 3, 5 AND 7 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

NOTES:
1. SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
2. REFER TO "EXISTING SIGNAL PLAN" SHEETS FOR INPLACE SIGNAL COMPONENTS.
3. ENSURE THE EXACT LOCATION OF HANDHOLES, POLES AND EQUIPMENT PAD, ARE VERIFIED IN THE FIELD BY THE COUNTY.
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
5. ALL SIGNAL MOUNTED SIGNS ARE INCLUDED IN THE LUMP SUM SIGNAL SYSTEM PAY ITEM, SEE SIGNING DETAIL SHEET.
6. PAVEMENT MARKINGS ARE INCLUDED AS PART OF STRIPING PLANS.
7. CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE INCLUDED AS PART OF THE ROADWAY PLAN. SEE THE INTERSECTION DETAILS, INCLUDED WITH THE ROADWAY PLAN, FOR INFORMATION.
8. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
9. USE PVC OR HDPE FOR ALL NEW CONDUIT.
10. CONDUIT SIZES ARE NOMINAL DIAMETER.
11. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE)
12. REMOVAL OF THE EXISTING SIGNAL IS INCLUDED IN PAYMENT FOR THE LUMP SUM SIGNAL SYSTEM PAY ITEM. REFER TO THE "EXISTING SIGNAL SHEETS FOR INPLACE SIGNAL SYSTEM COMPONENTS.
13. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM.

C.S.A.H. 61 (CHASKA BLVD) AT WALNUT ST
SIGNAL SYSTEM D - LAYOUT

BOLTON & MENK
12224 NICOLLET AVENUE
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(952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 326 OF 359

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SCALE FEET

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INTERSECTION NOTES

④
X: 543073.21
Y: 154759.69
PA100 POLE FOUNDATION
TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 10' AND 21'
1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR AT 90 DEG
1-ANGLE MOUNT SIGNAL POLE MOUNTED AT 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
✱ 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 1+6)
1-VIDEO DETECTION CAMERA (COUNTY FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT) (2)
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 1-1
1-SIGN (WALNUT ST) (SEE SIGN DETAILS)
3" CONDUIT TO HH 4:
2-6/C 14
7-4/C 14
✱ 1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 18 (VID)
✱ 1-3/C 20 (EVP)
1-1/C 6 INS. GR.

⑤
X: 543156.37
Y: 154834.55
PA90 POLE FOUNDATION
TYPE PA90-A-25-D40-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR OVERHEAD AT 0'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
✱ 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 3+8)
1-VIDEO DETECTION CAMERA (COUNTY FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT) (3)
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 8-2
2-SIGNS (CARVER 61 DBL)(CHASKA BLVD) (SEE SIGN DETAILS)
3" CONDUIT TO HH 5:
2-6/C 14
5-4/C 14
✱ 1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 18 (VID)
✱ 1-3/C 20 (EVP)
1-1/C 6 INS. GR.

Ⓐ EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB) WITH BATTERY BACKUP SYSTEM
CONTROLLER AND CABINET (COUNTY FURNISHED)

3" CONDUIT TO HH2:	3" CONDUIT TO HH1:
2-6/C 14	2-6/C 14
7-4/C 14	5-4/C 14
✱1-3/C 14 (EVP)	✱1-3/C 14 (EVP)
1-3/C 18 (VID)	1-3/C 18 (VID)
✱1-3/C 20 (EVP)	✱1-3/C 20 (EVP)
2-2/C 14	3-2/C 14
3" CONDUIT TO HH2:	3" CONDUIT TO HH1:
2-6/C 14	2-6/C 14
5-4/C 14	7-4/C 14
✱1-3/C 14 (EVP)	✱1-3/C 14 (EVP)
1-3/C 18 (VID)	1-3/C 18 (VID)
✱1-3/C 20 (EVP)	✱1-3/C 20 (EVP)
2-2/C 14	2-2/C 14
1-1/C 6 INS. GR.	1-1/C 6 INS. GR.
3" CONDUIT TO HH 2:(EMPTY)	3" CONDUIT TO HH 1:(EMPTY)

GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD
2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)

CONTROLLER CABINET TO SERVICE CABINET:
2" CONDUIT
3-1/C 6

CONTROLLER CABINET TO SERVICE CABINET (COMMS):
2" CONDUIT
1-6PR 19
SERVICE CABINET TO GROUND MOUNTED TRANSFORMER
2" CONDUIT
3-1/C 2

SERVICE CABINET TO HH2:
2" CONDUIT
3-3/C 14 (LUM)
HH2 TO HH1:
2" CONDUIT
2-3/C 14 (LUM)
SERVICE CABINET TO EXTERNAL GR.RD.:
1" CONDUIT
1-1/C 6 INS. GR.
(SEE EQUIPMENT PAD LAYOUT)

①
X: 543208.38
Y: 154732.93
PA100 POLE FOUNDATION
TYPE PA100-A-40-D40-9 (DAVIT AT 350 DEG)
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL OVERHEAD AT 10' AND 21'
1-ANGLE MOUNT SIGNAL WITH CLUSTER ADAPTOR AT 90 DEG
1-ANGLE MOUNT SIGNAL POLE MOUNTED AT 180 DEG
1-ANGLE MOUNT C.D. PED HEAD AT 90 DEG
✱ 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 2+5)
1-VIDEO DETECTION CAMERA (COUNTY FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT) (1)
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 5-1
1-SIGN (WALNUT ST) (SEE SIGN DETAILS)
3" CONDUIT TO HH 2:
2-6/C 14
6-4/C 14
✱ 1-3/C 14 (EVP)
1-3/C 14 (LUM)
1-3/C 18 (VID)
✱ 1-3/C 20 (EVP)
1-1/C 6 INS. GR.

Ⓑ INP SOP
CITY OF CHASKA ELECTRIC
2" CONDUIT FROM SOP TO HH2 TO CABINET WITH:
3-1/C 2

③
X: 543126.90
Y: 154648.77
PA90 POLE FOUNDATION
TYPE PA90-A-35
1-STRAIGHT MOUNT SIGNAL WITH CLUSTER ADAPTOR OVERHEAD AT 9'
2-ANGLE MOUNT SIGNALS POLE MOUNTED AT 90 AND 180 DEG
2-ANGLE MOUNT C.D. PED HEADS AT 90 AND 180 DEG
✱ 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4+7)
1-VIDEO DETECTION CAMERA (COUNTY FURNISHED) MOUNTED ON 6' EXTENSION AT 5' FROM END OF MAST ARM
1-TYPE R10-X12 SIGN ADJACENT TO HEAD 4-2
2-SIGNS (CARVER 61 DBL)(CHASKA BLVD) (SEE SIGN DETAILS)
3" CONDUIT TO HH 3:
2-6/C 14
5-4/C 14
✱ 1-3/C 14 (EVP)
1-3/C 18 (VID)
✱ 1-3/C 20 (EVP)
1-1/C 6 INS. GR.

②
X: 543195.40
Y: 154691.38
PEDESTAL FOUNDATION
TYPE 4A SIGNAL PEDESTAL
8' PEDESTAL POLE PLUS BASE
1-C.D. PED HEAD
1-APS PB AND SIGN (RT ARROW)(PB2-2)
AND APS PB MOUNTING SPACERS
3" CONDUIT TO HH 2:
1-4/C 14
1-2/C 14
1-1/C INS. GR.

C.S.A.H. 61 (CHASKA BLVD) AT WALNUT ST
SIGNAL SYSTEM D - INTERSECTION NOTES

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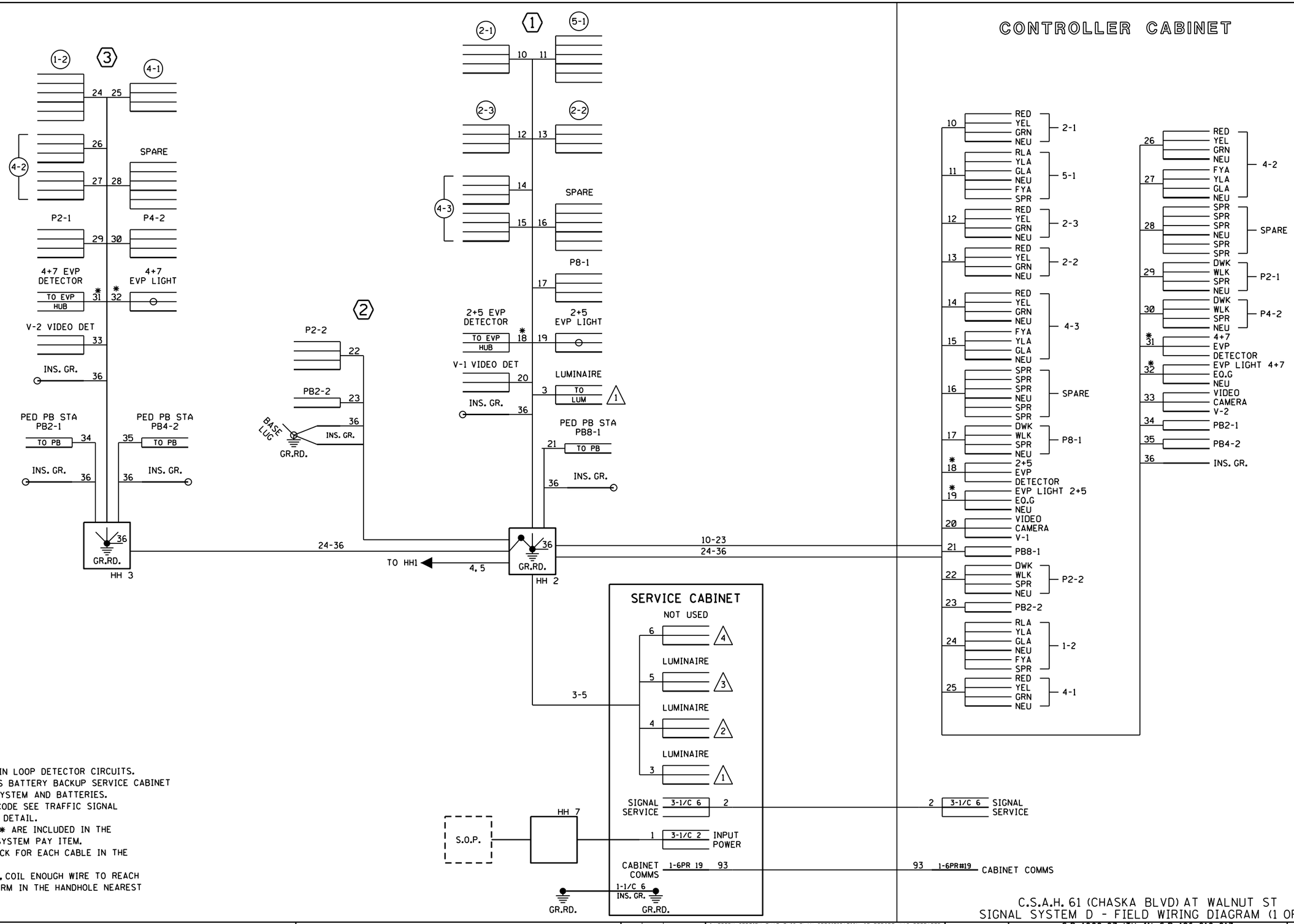
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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

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CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 327 OF 359

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NOTES:
1. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
2. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET WITH BATTERY BACKUP SYSTEM AND BATTERIES.
3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
4. ITEMS DENOTED WITH A * ARE INCLUDED IN THE PAYMENT FOR THE EVP SYSTEM PAY ITEM.
5. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.
6. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.

C.S.A.H. 61 (CHASKA BLVD) AT WALNUT ST
SIGNAL SYSTEM D - FIELD WIRING DIAGRAM (1 OF 2)

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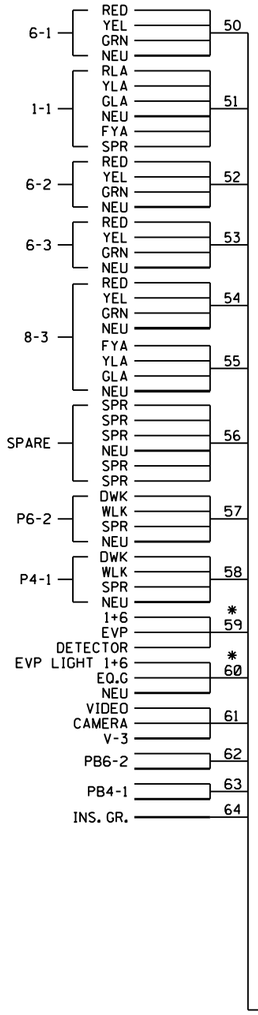
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SIGNAL PLAN

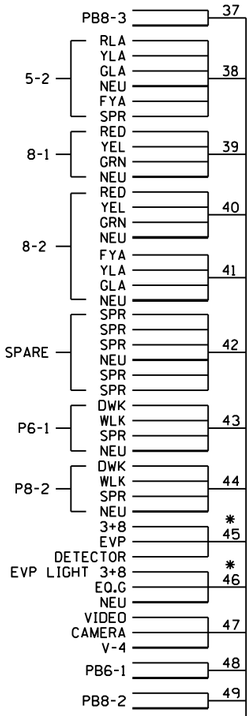
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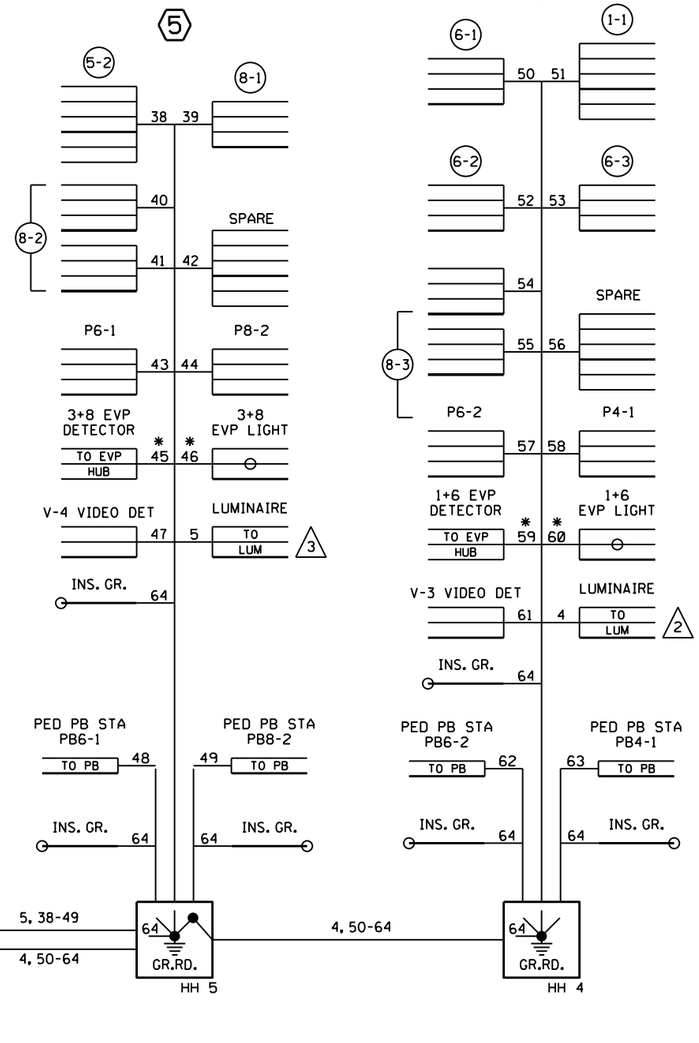
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NOTES:
1. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
2. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET WITH BATTERY BACKUP SYSTEM AND BATTERIES.
3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
4. ITEMS DENOTED WITH A * ARE INCLUDED IN THE PAYMENT FOR THE EVP SYSTEM PAY ITEM.
5. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.
6. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.

CONTROLLER CABINET







C.S.A.H. 61 (CHASKA BLVD) AT WALNUT ST
SIGNAL SYSTEM D - FIELD WIRING DIAGRAM (2 OF 2)

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SIGNAL PLAN

SHEET 329 OF 359

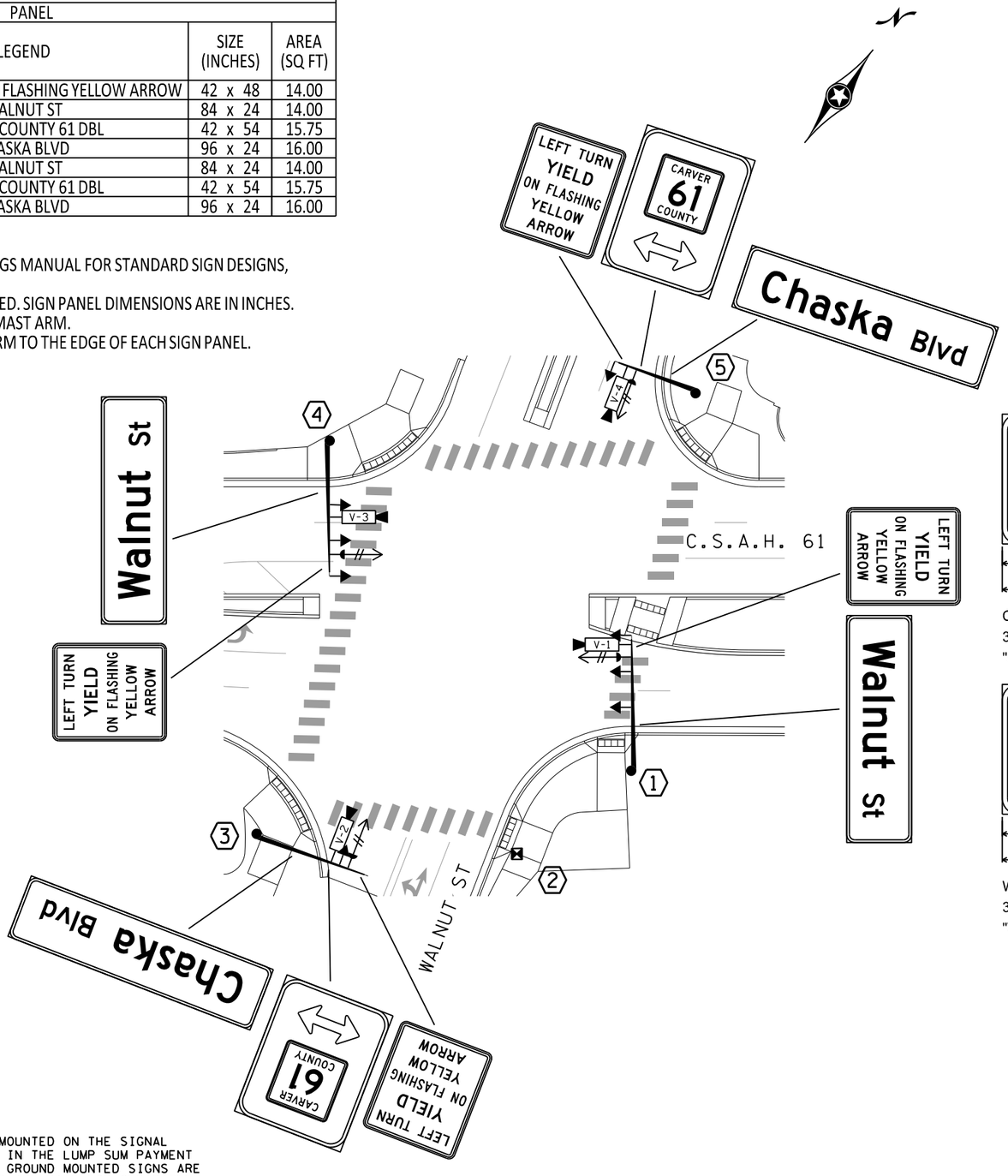
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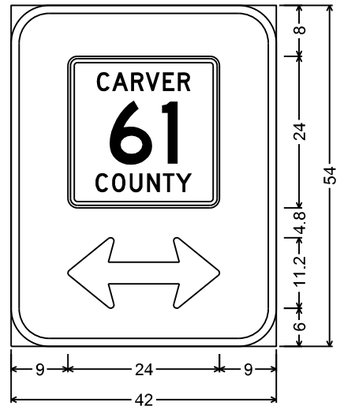
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Page 330 of...

SIGN PANELS ON SIGNALS

POLE NUMBER	"A" DISTANCE (FEET) OR POLE	PANEL				
		QTY	CODE NUMBER	LEGEND	SIZE (INCHES)	AREA (SQ FT)
1,3,4,5	0	4	R10-X12	LEFT TURN YIELD ON FLASHING YELLOW ARROW	42 x 48	14.00
1	26	1		WALNUT ST	84 x 24	14.00
3	12	1		CARVER COUNTY 61 DBL	42 x 54	15.75
3	17	1		CHASKA BLVD	96 x 24	16.00
4	26	1		WALNUT ST	84 x 24	14.00
5	9	1		CARVER COUNTY 61 DBL	42 x 54	15.75
5	14	1		CHASKA BLVD	96 x 24	16.00

GENERAL NOTE(S):
1. SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, ARROW DETAILS AND SPLICE PLATE DETAILS.
2. FOR NON STANDARD SIGN DESIGNS, LAYOUTS ARE INCLUDED. SIGN PANEL DIMENSIONS ARE IN INCHES.
3. SEE STANDARD PLAN 5-297.731 FOR SIGN MOUNTING TO MAST ARM.
4. "A" DISTANCE = DISTANCE FROM THE END OF THE MAST ARM TO THE EDGE OF EACH SIGN PANEL.

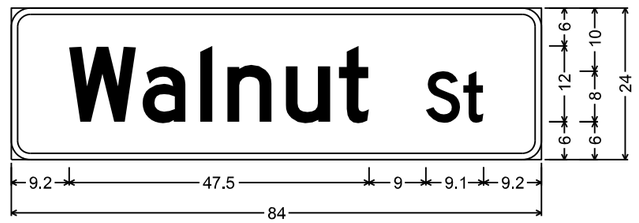




6.0" Radius, 1.3" Border, White on Green;
Double Headed Arrow 5 - 24.0" 0°;

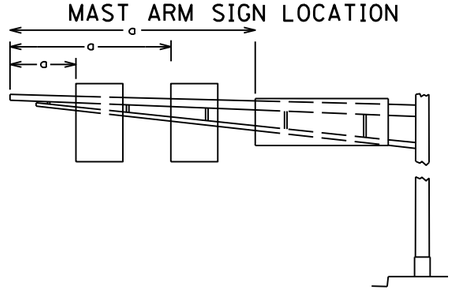


Chaska Blvd;
3.0" Radius, 1.0" Border, White on Green;
"Chaska Blvd", D 2K;



Walnut St;
3.0" Radius, 1.0" Border, White on Green;
"Walnut St", D 2K;

MAST ARM SIGN LOCATION



NOTES:
1. ALL SIGN DIMENSIONS ARE IN INCHES.
2. THE SIGNS ON THIS DETAIL SHEET ARE SIGNS THAT ARE MOUNTED ON THE SIGNAL MAST ARM OR SIGNAL POLES. THESE SIGNS ARE INCLUDED IN THE LUMP SUM PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM. ADDITIONAL GROUND MOUNTED SIGNS ARE REQUIRED AND ARE INCLUDED WITH THE SIGNING PLAN AND ARE PAID FOR SEPARATELY AS INDICATED WITH THE SIGNING PLAN.

C.S.A.H. 61 (CHASKA BLVD) AT WALNUT ST
SIGNAL SYSTEM D - MAST ARM SIGN DETAILS

BOLTON & MENK
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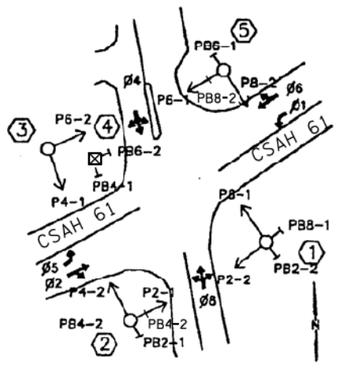
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 330 OF 359

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CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTON LAYOUT.



SIGNAL HEAD CHART
ALL SIGNAL FACES SHALL BE 12"

FACE	R LED	Y	G
1-1	◁	◁	◁
5-1	◁	◁	◁
2-1, 2-2	○	○	○
4-1, 4-2, 4-3	○	○	○
6-1, 6-2, 8-3	○	○	○
8-1, 8-2	○	○	○

SIGNAL SYSTEM OPERATION

- FLASH MODE IS ALL RED.
- NORMAL OPERATION IS FIVE PHASE
- PHASES ONE AND FIVE SHALL BE PROTECTED LEFT TURNS.
- PHASES TWO AND SIX SHALL BE ON VEHICLE RECALL

LOOP DETECTOR CHART

NUMBER	SIZE (FT)	LOCATION
D1-1, D5-1	2-6X6	0'&45'
D2-1, D2-2	6X6	270'
D4-1	2-6X6	5'&20'
D4-2	2-6X6	0'&15'
D4-3	2-6X6	150'
D6-1, D6-2	6X6	260'
D8-1, D8-2	2-6X6	0'&15'
D8-3	2-6X6	120'

-ALL LOOP DETECTORS SHALL BE PVC UNLESS NOTED OTHERWISE
-LOCATION: DISTANCE FROM CROSSWALK/STOP BAR IN FEET

NOTES:
1. PEDESTRIAN SIGNAL INDICATIONS ARE COUNTDOWN TYPE.
2. AT HH 12 ALL CONDUITS SHALL BE CAPPED AND BACK FILLED.

C.S.A.H. 61 (CHASKA BLVD.) AT WALNUT ST.
SIGNAL SYSTEM D - EXISTING SIGNAL PLAN

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 331 OF 359

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(1)

P100 POLE FOUNDATION
TYPE P100-A35-D40-9 (DAVIT AT 350 DEG)
2-ONE WAY SIGNALS OVERHEAD AT 0'& 17'
2-TYPE 10B AT 90 & 270 DEG
LUMINAIRE-200W HPS W/PEC & TEST SW
2-SWING AWAY HINGES
2-SOLID STATE PBS & SIGNS
TO HH 17:
3" RSC
2-12/C #12
2-3/C #12
2-1/C #10

(2)

P90 POLE FOUNDATION
TYPE P90-A-25
1-ONE WAY SIGNAL OVERHEAD AT 0'
1-TYPE 30A AT 0 DEG
1-TYPE 10B AT 270 DEG
2-SOLID STATE PBS & SIGNS
TO HH 5:
3" RSC
2-12/C #12
1-3/C #12

(3)

PA100 POLE FOUNDATION
TYPE P100-A-35-D40-9 (DAVIT AT 350 DEG)
2-ONE WAY SIGNALS OVERHEAD AT 0'& 17'
2-TYPE 10B AT 90 & 270 DEG
LUMINAIRE-200W HPS W/PEC & TEST SW
ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
2-SWING AWAY HINGES
2-SOLID STATE PBS & SIGNS
2-TYPE D SIGNS
TO HH 10:
3" RSC
2-12/C #12
1-3/C #12
1-3/C #12 (LUM)

(4)

PEDESTAL FOUNDATION
2-SOLID STATE PBS & SIGNS
TO HH 10:
3" RSC
1-5/C #12

(5)

P90 POLE FOUNDATION
TYPE P90-A-35
1-ONE WAY SIGNAL OVERHEAD AT 0'
1-TYPE 30A AT 0 DEG
1-TYPE 10B AT 270 DEG
2-SOLID STATE PBS & SIGNS
TO HH 14:
3" RSC
2-12/C #12
1-3/C #12

(A)

EQUIPMENT PAD CONTROLLER AND CBINET
TO HH 1:
4" RSC
4-12/C #12
1-5/C #12
3-3/C #12
9-2/C #14
1-6PR #19
2-1/C #6
1-1/C #6 BR GR

TO HH 17:
4" RSC
4-12/C #12
3-3/C #12
3-2/C #14

(B)

SOP-25' WOOD POLE-CLASS 2
SERVICE EQUIPMENT
TO HH 1:
1¼" RSC
2-1/C #6
1-1/C #6 BR. GR.
2-1/C #10
1-3/C #12 (LUM)

SIGNAL PLAN

EXISTING

C.S.A.H. 61 (CHASKA BLVD.) AT WALNUT ST.
SIGNAL SYSTEM D - EXISTING SIGNAL PLAN

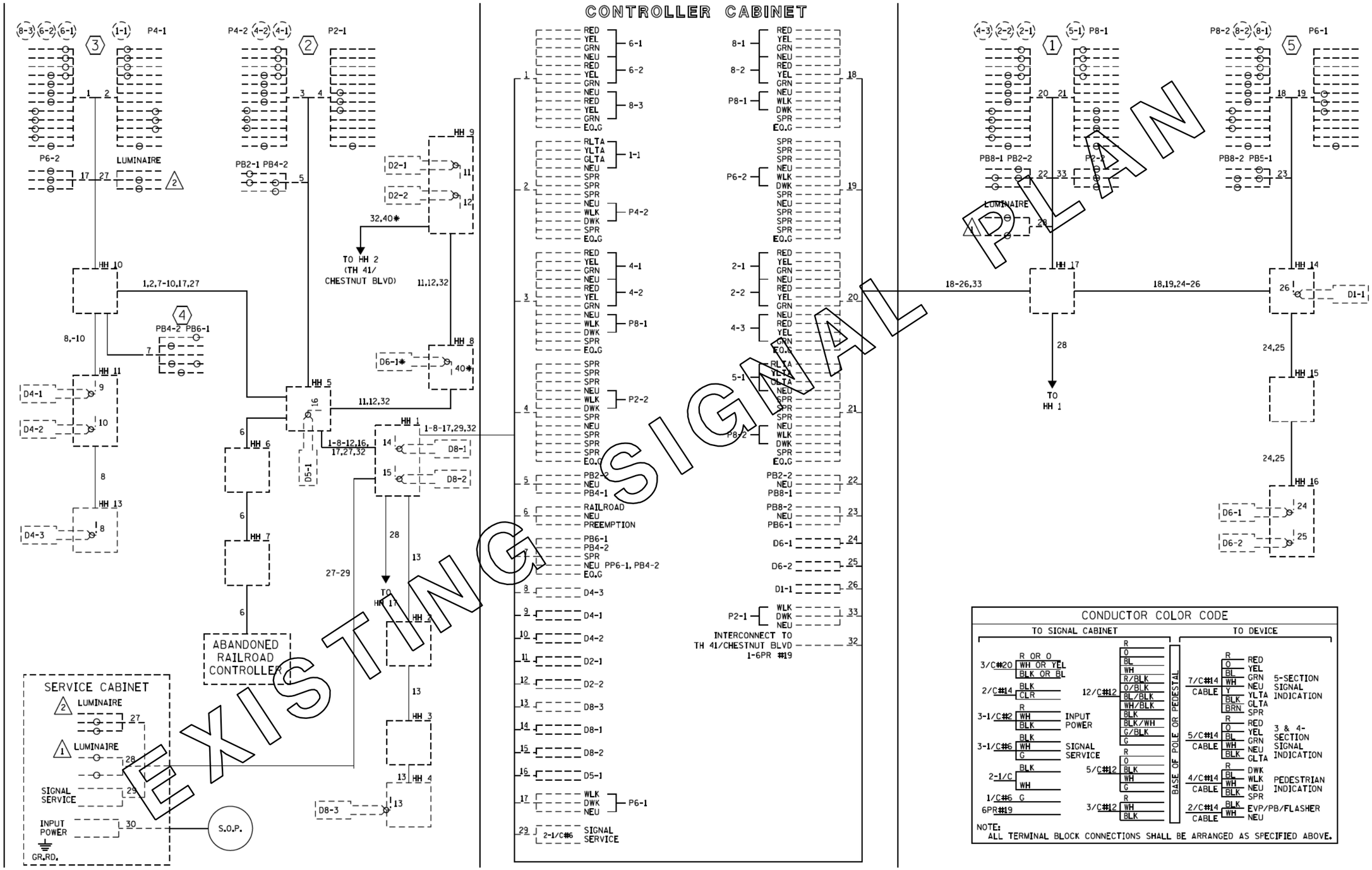
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 332 OF 359



CONDUCTOR COLOR CODE

TO SIGNAL CABINET			TO DEVICE		
3/C#20	R OR O WH OR YEL BLK OR BL		7/C#14 CABLE	R O BL WH BLK BRN	RED YEL GRN 5-SECTION NEU SIGNAL YLTA INDICATION GLTA SPR
2/C#14	BLK CLR	12/C#12			
3-1/C#2	R WH BLK	INPUT POWER	5/C#14 CABLE	R O BL WH BLK	RED YEL GRN 3 & 4- NEU SECTION GLTA SIGNAL INDICATION
3-1/C#6	BLK WH G	SIGNAL SERVICE			
2-1/C	BLK WH	5/C#12	4/C#14 CABLE	R BL WH BLK	DWK WLK PEDESTRIAN NEU INDICATION SPR
1/C#6	G				
6PR#19		3/C#12	2/C#14 CABLE	BLK WH	EVP/PB/FLASHER NEU

BASE OF POLE OR PEDESTAL

NOTE:
ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

C.S.A.H. 61 (CHASKA BLVD.) AT WALNUT ST.
SIGNAL SYSTEM D - EXISTING SIGNAL PLAN

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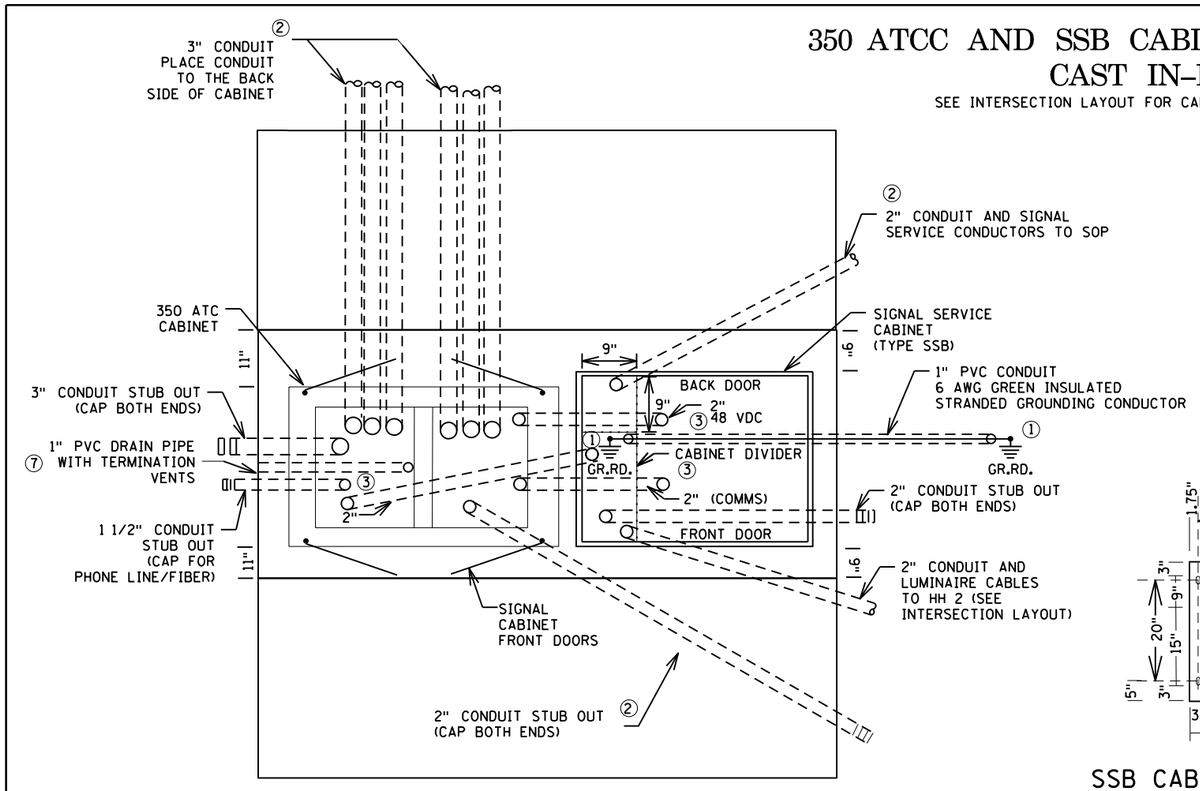
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 333 OF 359

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350 ATCC AND SSB CABINET EQUIPMENT PAD
CAST IN-PLACE

SEE INTERSECTION LAYOUT FOR CABLE INFORMATION (NOT TO SCALE)



PLAN VIEW

NOTES:

FOR THE EQUIPMENT PAD USE CONCRETE MIX 3G52 WITH APPROVED MACRO NON-METALLIC FIBERS FOR REINFORCEMENT LISTED ON MnDOT'S APPROVED/QUALIFIED PRODUCTS LIST UNDER CONCRETE "NONMETALLIC FIBERS (BRIDGE APPLICATIONS)". ADD FIBERS TO THE CONCRETE MIX IN ACCORDANCE WITH THE NON-METALIIC FIBERS MANUFACTURERS INSTRUCTIONS AND CONTRACT DOCUMENTS.

FOR CONCRETE WALK USE CONCRETE MIX 3G52. 3G52 CONCRETE MIX WITH NON-METALLIC FIBERS MAY BE USED FOR THE CONCRETE WALK AND POLE FOUNDATIONS. DO NOT USE NON-METALLIC FIBERS AS A SUBSTITUTE FOR THE REQUIRED REINFORCEMENT IN ACCORDANCE WITH THE POLE FOUNDATION STANDARD PLATES.

① PLACE A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH THE GROUNDING ELECTRODE SYSTEM DETAIL ON SHEET 3 OF STANDARD PLATE NUMBER 8106 EXCEPT FURNISH AND INSTALL 10 FOOT LONG GROUND ROD ELECTRODES, 6 AWG GREEN INSULATED COPPER CONDUCTOR AND EXOTHERMIC WELDED CONNECTIONS.

② CONDUIT SIZE, QUANTITY AND DIRECTION MAY VARY. FURNISH AND INSTALL CONDUITS AS SPECIFIED ON THE INTERSECTION LAYOUT PLAN SHEET.

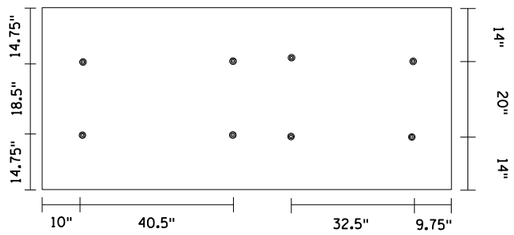
③ ENSURE THE CONDUITS FULLY ENCASED IN CONCRETE FROM ONE CABINET TO THE OTHER ARE PLACED AT THE CORRECT DEPTH AND LOCATION TO AVOID INTERFERENCE WITH THE INSTALLATION OF THE ANCHOR RODS.

④ USE TEMPLATES WITH THE DIMENSIONS SHOWN INCLUDING OPENINGS, DIVIDERS, ANCHOR ROD HOLES AS A GUIDE TO ENSURE PROPER PLACEMENT OF THE CABINETS, CONDUITS AND ANCHOR RODS. 350 BASE OPENINGS FOR TEMPLATE ARE SMALLER THAN THE ACTUAL BASE OPENINGS.

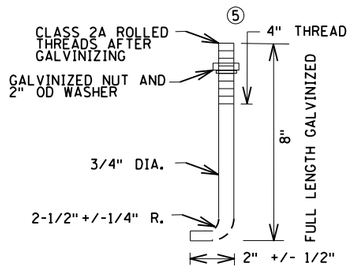
⑤ PLACE ANCHORS 1 3/4 INCHES - 2 1/4 INCHES ANCHOR ROD PROJECTION ABOVE THE CONCRETE PAD. FURNISH AND INSTALL ANCHOR RODS SHOWN IN THE ANCHOR ROD DETAIL FOR WET CASTING ANCHORS IN WET CONCRETE. FURNISH AND INSTALL ANCHOR RODS SHOWN IN THE ANCHOR ROD DETAIL FOR EPOXY ADHESIVE IF USING ADHESIVE ANCHORS. INSERT ANCHOR RODS IN 7/8 INCH DIAMETER DRILLED HOLES,5 INCHES DEEP WITH AN APPROVED EPOXY ADHESIVE LISTED ON MnDOT'S APPROVED/QUALIFIED PRODUCTS LIST (ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON BASE ADHESIVE ANCHORING). DO NOT USE MECHANICAL OR CONCRETE WEDGE ANCHORS.

⑥ IF THE SITE CONDITIONS REQUIRE THE PAD TO BE PLACED WITHIN A SLOPE, INCREASE THE THICKNESS OF THE PAD BY 6 INCHES. SHAPE THE TERRAIN AROUND THE PAD FOR POSITIVE DRAINAGE.

⑦ FURNISH AND INSTALL A DRAIN IN THE PAD USING 1 INCH PVC SCH. 40 PIPE FOR PLUMBING. PLACE PVC TERMINATION VENT SCREEN DESIGNED FOR PVC PIPE AT EACH END OF THE PIPE. PROVIDE PVC TERMINATION VENTS WITH A STAINLESS STEEL SCREEN. ENSURE THE TERMINATION VENT SCREEN AND PIPE ARE FLUSH WITH THE TOP AND SIDE OF THE PAD AND PROTECT FROM CONCRETE INTRUSION BEFORE CONCRETE PLACEMENT OPERATIONS.

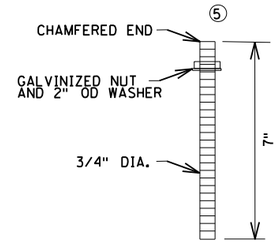


ANCHOR ROD LOCATION DETAIL



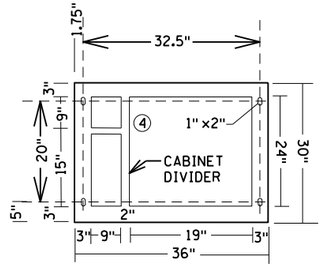
WET CAST ANCHOR ROD DETAIL

(SPEC. 3385 TYPE A OR TYPE B AND GALVANIZED IN ACCORDANCE WITH SPEC. 3392)

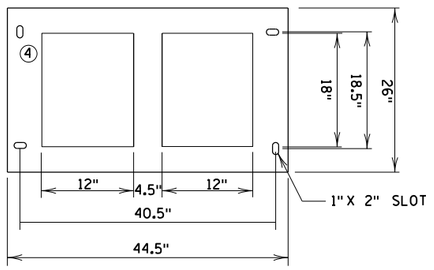


EPOXY ADHESIVE ANCHOR ROD DETAIL

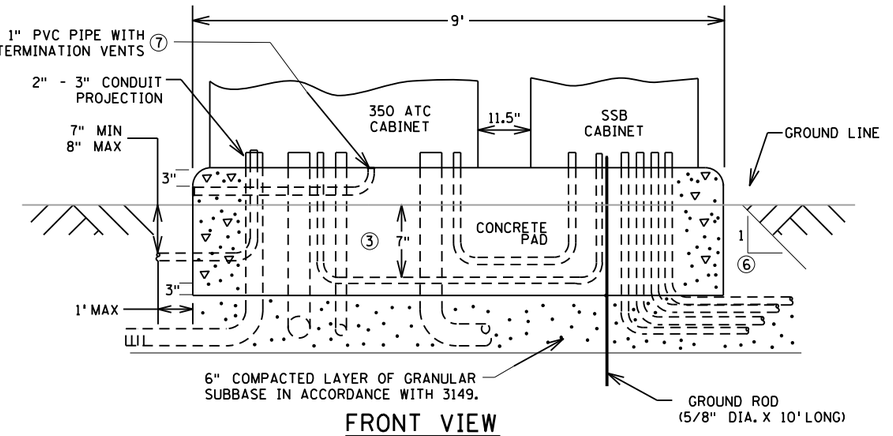
(SPEC. 3385 TYPE A OR TYPE B AND GALVANIZED IN ACCORDANCE WITH SPEC. 3392)



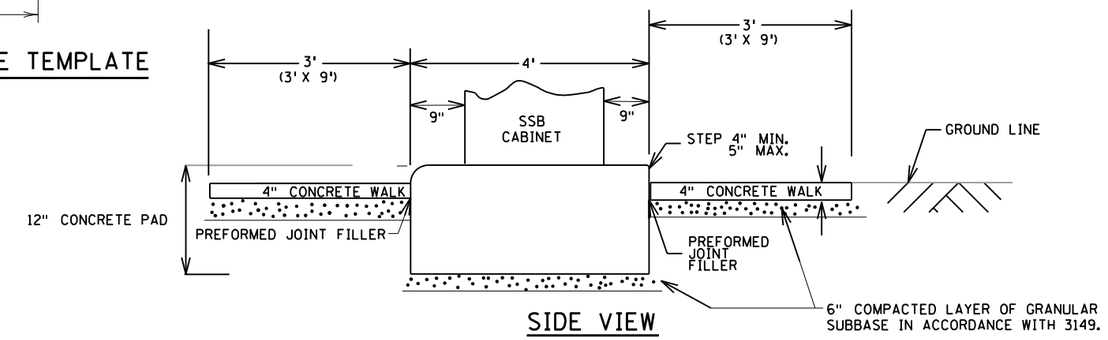
SSB CABINET BASE TEMPLATE



350 CABINET BASE TEMPLATE



FRONT VIEW



SIDE VIEW

T.H. 41 (CHESTNUT ST) AT WALNUT ST
SIGNAL SYSTEM E - PAD DETAIL

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

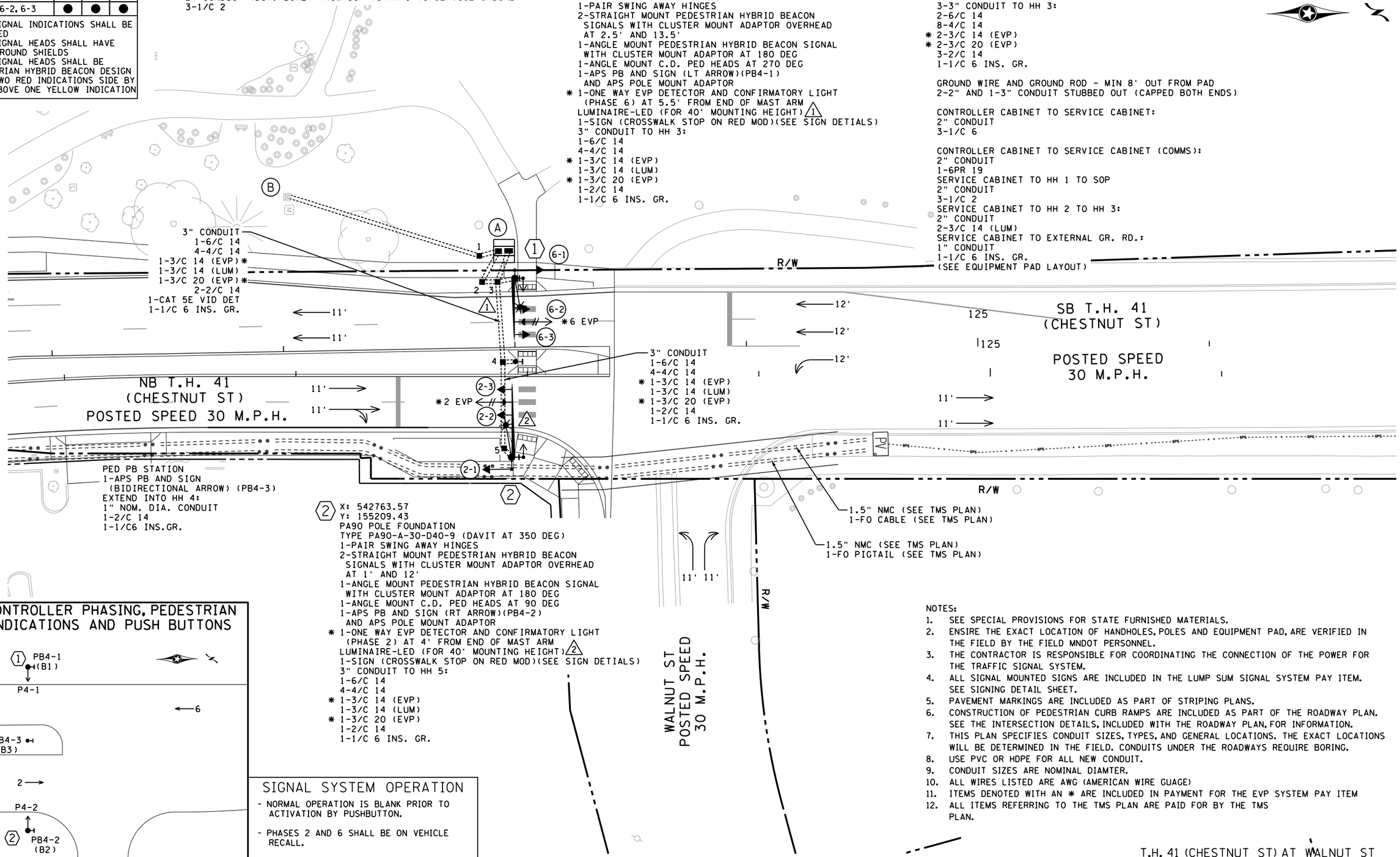
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SIGNAL FACE CHART

FACE	R	R	Y
2-1, 2-2, 2-3	●	●	●
6-1, 6-2, 6-3	●	●	●

-ALL SIGNAL INDICATIONS SHALL BE 12" LED
-ALL SIGNAL HEADS SHALL HAVE BACKGROUND SHIELDS
-ALL SIGNAL HEADS SHALL BE PEDESTRIAN HYBRID BEACON DESIGN WITH TWO RED INDICATIONS SIDE BY SIDE ABOVE ONE YELLOW INDICATION



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS

SIGNAL SYSTEM OPERATION

- NORMAL OPERATION IS BLANK PRIOR TO ACTIVATION BY PUSHBUTTON.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

NOTES:
1. SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
2. ENSIRE THE EXACT LOCATION OF HANDHOLES, POLES AND EQUIPMENT PAD, ARE VERIFIED IN THE FIELD BY THE FIELD MNDOT PERSONNEL.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE CONNECTION OF THE POWER FOR THE TRAFFIC SIGNAL SYSTEM.
4. ALL SIGNAL MOUNTED SIGNS ARE INCLUDED IN THE LUMP SUM SIGNAL SYSTEM PAY ITEM. SEE SIGNING DETAIL SHEET.
5. PAVEMENT MARKINGS ARE INCLUDED AS PART OF STRIPING PLANS.
6. CONSTRUCTION OF PEDESTRIAN CURB RAMPS ARE INCLUDED AS PART OF THE ROADWAY PLAN. SEE THE INTERSECTION DETAILS, INCLUDED WITH THE ROADWAY PLAN, FOR INFORMATION.
7. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
8. USE PVC OR HDPE FOR ALL NEW CONDUIT.
9. CONDUIT SIZES ARE NOMINAL DIAMTER.
10. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GUAGE)
11. ITEMS DENOTED WITH AN * ARE INCLUDED IN PAYMENT FOR THE EVP SYSTEM PAY ITEM
12. ALL ITEMS REFERRING TO THE TMS PLAN ARE PAID FOR BY THE TMS PLAN.

T.H. 41 (CHESTNUT ST) AT WALNUT ST
SIGNAL SYSTEM E - LAYOUT

SYSTEM ID: 4348436
METER ADDRESS: 3220 E CHASKA BLVD-LOT LIGHTS
SCALE 0 20 40 FEET
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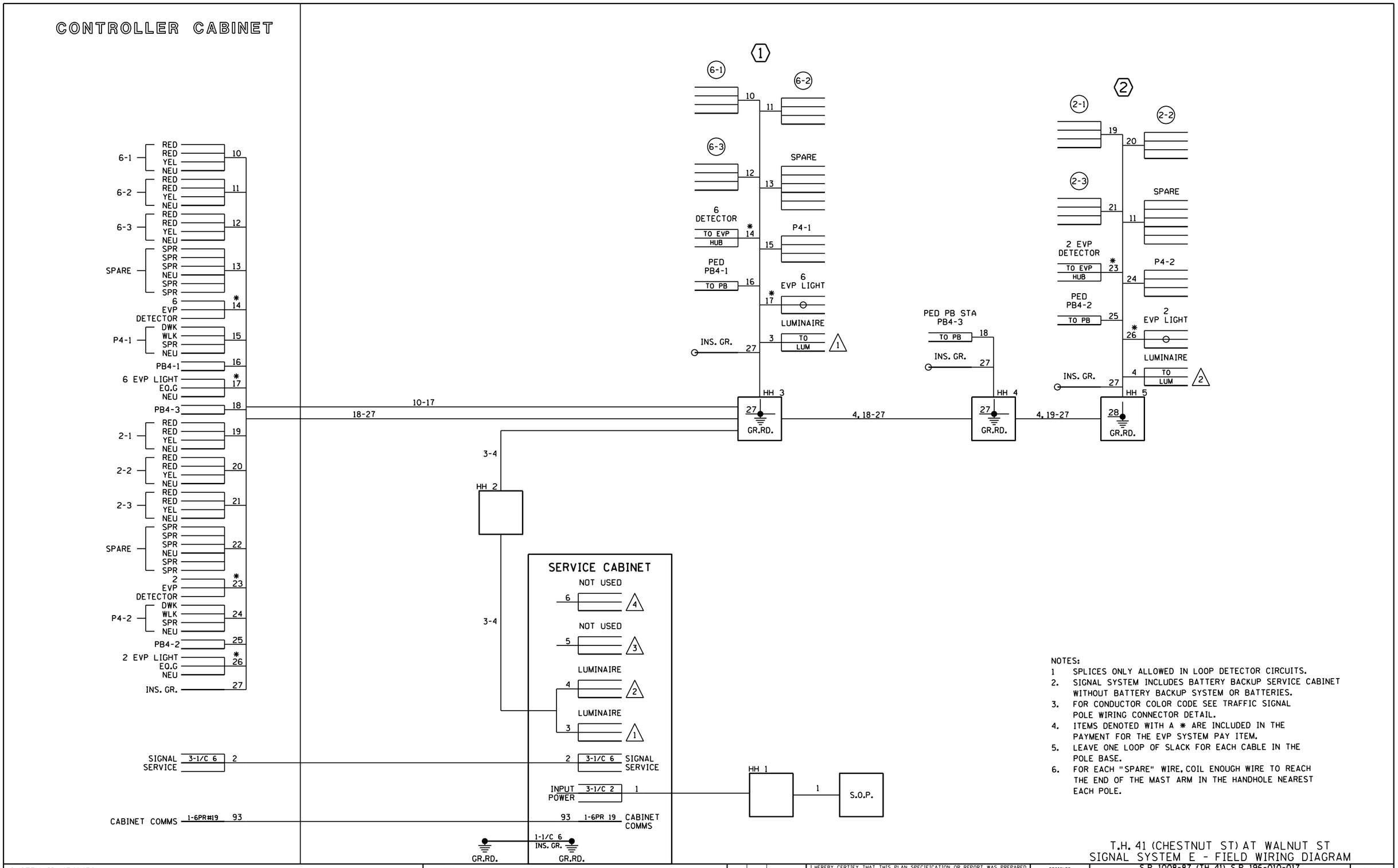
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SIGNAL PLAN

SHEET 335 OF 359

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NOTES:

1. SPLICES ONLY ALLOWED IN LOOP DETECTOR CIRCUITS.
2. SIGNAL SYSTEM INCLUDES BATTERY BACKUP SERVICE CABINET WITHOUT BATTERY BACKUP SYSTEM OR BATTERIES.
3. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
4. ITEMS DENOTED WITH A ✱ ARE INCLUDED IN THE PAYMENT FOR THE EVP SYSTEM PAY ITEM.
5. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.
6. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HANDHOLE NEAREST EACH POLE.

T.H. 41 (CHESTNUT ST) AT WALNUT ST
SIGNAL SYSTEM E - FIELD WIRING DIAGRAM

SYSTEM ID: 4348436

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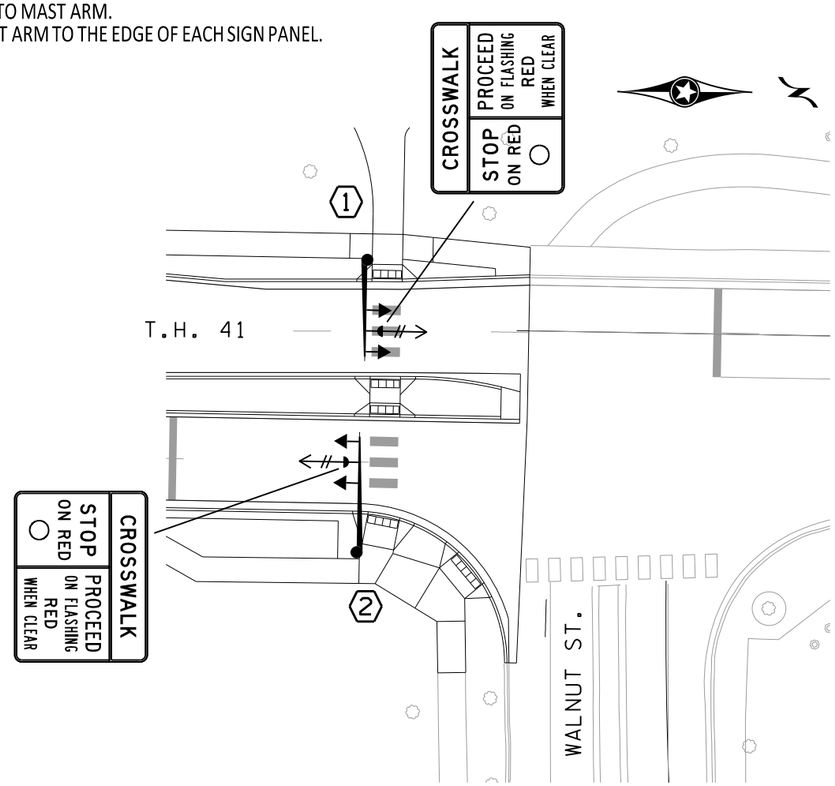
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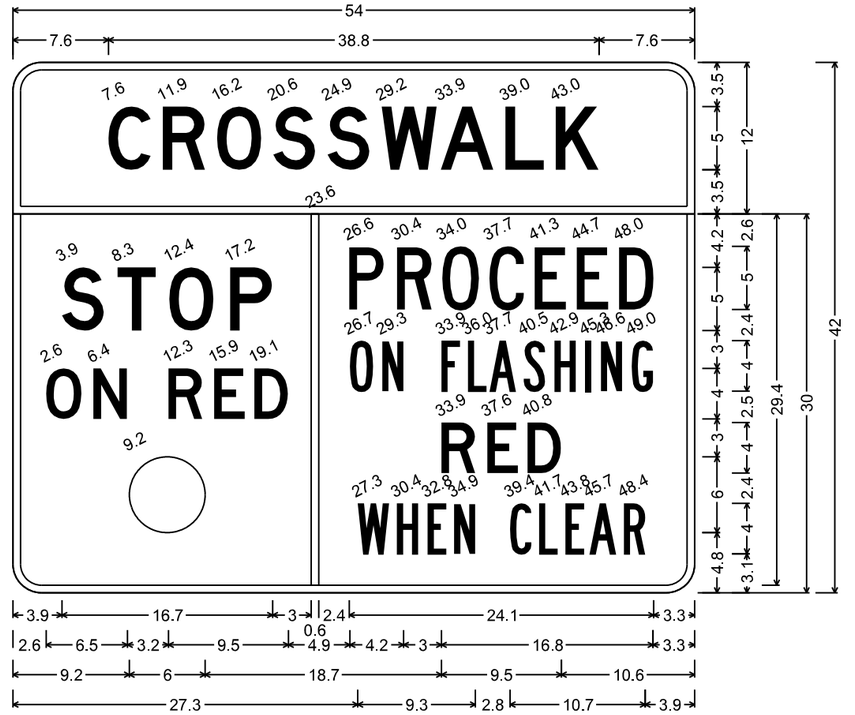
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SIGN PANELS ON SIGNALS

POLE NUMBER	"A" DISTANCE (FEET) OR POLE	PANEL				
		QTY	CODE NUMBER	LEGEND	SIZE (INCHES)	AREA (SQ FT)
1	6.5	1		CROSSWALK STOP ON RED (MOD)	54 x 42	15.75
2	5	1		CROSSWALK STOP ON RED (MOD)	54 x 42	15.75

GENERAL NOTE(S):
1. SEE THE CURRENT MnDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGNS, ARROW DETAILS AND SPLICE PLATE DETAILS.
2. FOR NON STANDARD SIGN DESIGNS, LAYOUTS ARE INCLUDED. SIGN PANEL DIMENSIONS ARE IN INCHES.
3. SEE STANDARD PLAN 5-297.731 FOR SIGN MOUNTING TO MAST ARM.
4. "A" DISTANCE = DISTANCE FROM THE END OF THE MAST ARM TO THE EDGE OF EACH SIGN PANEL.

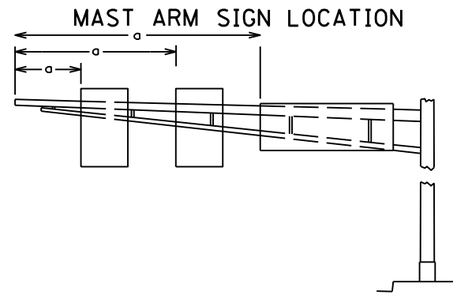




2.3" Radius, 0.6" Border, Black on Yellow;
"CROSSWALK", D;

2.3" Radius, 0.6" Border, Black on White;
"STOP", D specified length; "ON RED", D; "PROCEED", C;
"ON FLASHING", B; "RED", D; "WHEN CLEAR", B;

MAST ARM SIGN LOCATION



NOTES:
1. ALL SIGN DIMENSIONS ARE IN INCHES.
2. THE SIGNS ON THIS DETAIL SHEET ARE SIGNS THAT ARE MOUNTED ON THE SIGNAL MAST ARM OR SIGNAL POLES. THESE SIGNS ARE INCLUDED IN THE LUMP SUM PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM. ADDITIONAL GROUND MOUNTED SIGNS ARE REQUIRED AND ARE INCLUDED WITH THE SIGNING PLAN AND ARE PAID FOR SEPARATELY AS INDICATED WITH THE SIGNING PLAN.

T.H. 41 (CHESTNUT ST) AT WALNUT ST
SIGNAL SYSTEM E - MAST ARM SIGN DETAILS

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
SIGNAL PLAN

SHEET 337 OF 359

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LIGHTING SYSTEM A
LIGHTING STANDARDS AND BASES

FEED POINT A

	NO.	ALIGNMENT	STATION	LT.	RT.	TYPE	FOUNDATION
	A1 A2	TH 41 NB	101+02		24.5'	SPECIAL 2	DESIGN P MOD
	A3 A4	TH 41 NB	99+75		16.6'	SPECIAL 2	DESIGN P MOD
	A5 A6	TH 41 NB	98+12		16.7'	SPECIAL 2	DESIGN P MOD
	A7 A8	TH 41 NB	97+09		24.7'	SPECIAL 2	DESIGN P MOD
	A9 A10	TH 41 NB	96+12		22.6'	SPECIAL 2	DESIGN P MOD
	A11 A12	TH 41 NB	95+10		16.7'	SPECIAL 2	DESIGN P MOD
	A13 A14	TH 41 NB	94+21		16.7'	SPECIAL 2	DESIGN P MOD
(1)	A15 A16	TH 41 NB	93+73		29.8'		BRIDGE
(1)	A17 A18	TH 41 NB	92+08		30.2'		BRIDGE
(1)	A19 A20	TH 41 NB	90+23		32.1'		BRIDGE
	A21 A22	TH 41 NB	97+95	7.2'		SPECIAL 2	DESIGN P MOD
	A23 A24	TH 41 NB	97+30	7.3'		SPECIAL 2	DESIGN P MOD
	A25 A26	TH 41 SB	100+58	16.7'		SPECIAL 2	DESIGN P MOD
	A27 A28	TH 41 SB	98+88	18.4'		SPECIAL 2	DESIGN P MOD
	A29 A30	TH 41 SB	96+38	16.7'		SPECIAL 2	DESIGN P MOD
	A31 A32	TH 41 SB	95+38	16.7'		SPECIAL 2	DESIGN P MOD
	A33 A34	TH 41 SB	94+25	16.5'		SPECIAL 2	DESIGN P MOD
(1)	A35 A36	TH 41 SB	92+64	17.0'			BRIDGE
(1)	A37 A38	TH 41 SB	91+29	17.0'			BRIDGE
(1)	A39 A40	TH 41 SB	89+48	17.0'			BRIDGE
	A41 A42	TH 41 NB	103+01		17.7'	SPECIAL 2	DESIGN P MOD
	A43 A44	TH 41 NB	104+15		20.7'	SPECIAL 2	DESIGN P MOD
	A45 A46	TH 41 SB	102+62	21.2'		SPECIAL 2	DESIGN P MOD
	A47 A48	TH 41 SB	103+52	16.6'		SPECIAL 2	DESIGN P MOD
	A49 A50	TH 41 SB	104+85	16.7'		SPECIAL 2	DESIGN P MOD
	A51 A52	TH 41 NB	104+94	8.2'		SPECIAL 2	DESIGN P MOD

LIGHTING SYSTEM B
LIGHTING STANDARDS AND BASES

FEED POINT B

NO.	ALIGNMENT	STATION	LT.	RT.	TYPE	FOUNDATION
B1 B2	TH 41 NB	110+43		16.7'	SPECIAL 2	DESIGN P MOD
B3 B4	TH 41 NB	111+80		16.5'	SPECIAL 2	DESIGN P MOD
B5 B6	TH 41 NB	113+98		14.8'	SPECIAL 2	DESIGN P MOD
B7 B8	TH 41 NB	114+60		29.7'	SPECIAL 2	DESIGN P MOD
B9 B10	TH 41 NB	115+46		26.0'	SPECIAL 2	DESIGN P MOD
B11 B12	TH 41 NB	112+67	24.5'		SPECIAL 2	DESIGN P MOD
B13 B14	TH 41 NB	113+13	25.0'		SPECIAL 2	DESIGN P MOD
B15 B16	TH 41 NB	106+88		16.7'	SPECIAL 2	DESIGN P MOD
B17 B18	TH 41 NB	105+80		16.7'	SPECIAL 2	DESIGN P MOD
B19 B20	TH 41 NB	105+59	8.7'		SPECIAL 2	DESIGN P MOD
B21 B22	TH 41 SB	111+13	20.7'		SPECIAL 2	DESIGN P MOD
B23 B24	TH 41 SB	112+42	23.0'		SPECIAL 2	DESIGN P MOD
B25 B26	TH 41 SB	114+01	24.2'		SPECIAL 2	DESIGN P MOD
A27 A28	TH 41 SB	114+86	32.1'		SPECIAL 2	DESIGN P MOD
A29 A30	TH 41 SB	107+84	16.7'		SPECIAL 2	DESIGN P MOD
A31 A32	TH 41 SB	106+37	23.4'		SPECIAL 2	DESIGN P MOD

NOTES:

(1) REMOVE EXISTING LUMINAIRES FURNISH AND INSTALL LED LUMINAIRES. SEE SPECIAL PROVISIONS

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Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

SHEET 338 OF 359

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LIGHTING SYSTEM C
LIGHTING STANDARDS AND BASES

FEED POINT C

NO.	ALIGNMENT	STATION	LT.	RT.	TYPE	FOUNDATION
C1	CSAH 61 WB	20+78	61.9'		SPECIAL 1	DESIGN P MOD
C2	CSAH 61 WB	21+74	35.8'		SPECIAL 1	DESIGN P MOD
C3	CSAH 61 WB	22+76	27.5'		SPECIAL 1	DESIGN P MOD
C4	CSAH 61 WB	25+00	28.2'		SPECIAL 1	DESIGN P MOD
C5 C6	CSAH 61 EB	24+34	10.0'		SPECIAL 2	DESIGN P MOD
C7	CSAH 61 EB	21+07		26.2'	SPECIAL 1	DESIGN P MOD
C8	CSAH 61 EB	21+87		26.0'	SPECIAL 1	DESIGN P MOD
C9	CSAH 61 EB	22+77		27.9'	SPECIAL 1	DESIGN P MOD
C10	TH 41 NB	117+60		39.6'	SPECIAL 1	DESIGN P MOD
C11	TH 41 NB	118+72		25.7'	SPECIAL 1	DESIGN P MOD
C12	TH 41 NB	120+04		25.8'	SPECIAL 1	DESIGN P MOD
C13	TH 41 NB	120+93		25.7'	SPECIAL 1	DESIGN P MOD
C14	TH 41 NB	121+98		26.6'	SPECIAL 1	DESIGN P MOD
C15	TH 41 NB	123+11		33.5'	SPECIAL 1	DESIGN P MOD
C16	TH 41 SB	118+25	35.7'		SPECIAL 1	DESIGN P MOD
C17	TH 41 SB	119+29	35.7'		SPECIAL 1	DESIGN P MOD
C18	TH 41 SB	120+22	35.7'		SPECIAL 1	DESIGN P MOD
C19	TH 41 SB	121+27	36.7'		SPECIAL 1	DESIGN P MOD
C20	TH 41 SB	122+22	30.9'		SPECIAL 1	DESIGN P MOD
C21 C22	TH 41 NB	122+84	6.2'		SPECIAL 2	DESIGN P MOD
C23	TH 41 SB	116+11	60.5'		SPECIAL 1	DESIGN P MOD
C24	TH 41 SB	115+89	38.9'		SPECIAL 1	DESIGN P MOD

LIGHTING SYSTEM D
LIGHTING STANDARDS AND BASES

FEED POINT D

NO.	ALIGNMENT	STATION	LT.	RT.	TYPE	FOUNDATION (1)
D1 D2	PEDESTRIAN UNDERPASS	36+85		16.1'	SPECIAL 3	PILASTER
D3 D4	PEDESTRIAN UNDERPASS	35+65		16.0'	SPECIAL 3	PILASTER
D5 D6	PEDESTRIAN UNDERPASS	34+64		16.0'	SPECIAL 3	PILASTER
D7 D8	PEDESTRIAN UNDERPASS	33+21		15.9'	SPECIAL 3	PILASTER
D9 D10	PEDESTRIAN UNDERPASS	32+16		15.9'	SPECIAL 3	PILASTER
D11 D12	PEDESTRIAN UNDERPASS	30+97		16.1'	SPECIAL 3	PILASTER
D13 D14	PEDESTRIAN UNDERPASS	36+25	5.9'		SPECIAL 3	PILASTER
D15 D16	PEDESTRIAN UNDERPASS	35+05	5.9'		SPECIAL 3	PILASTER
D17 D18	PEDESTRIAN UNDERPASS	24+64	6.0'		SPECIAL 3	PILASTER
D19	PEDESTRIAN UNDERPASS	34+55	2.0'		UNDERPASS LED	UNDERPASS
D20	PEDESTRIAN UNDERPASS	34+37	2.0'		UNDERPASS LED	UNDERPASS
D21	PEDESTRIAN UNDERPASS	34+19	2.0'		UNDERPASS LED	UNDERPASS
D22	PEDESTRIAN UNDERPASS	34+01	2.0'		UNDERPASS LED	UNDERPASS
D23	PEDESTRIAN UNDERPASS	33+82	2.0'		UNDERPASS LED	UNDERPASS
D24	PEDESTRIAN UNDERPASS	33+64	2.0'		UNDERPASS LED	UNDERPASS
D25	PEDESTRIAN UNDERPASS	33+46	2.0'		UNDERPASS LED	UNDERPASS
D26	PEDESTRIAN UNDERPASS	33+28	2.0'		UNDERPASS LED	UNDERPASS
D27 D28	PEDESTRIAN UNDERPASS	33+21	6.0'		SPECIAL 3	PILASTER
D29 D30	PEDESTRIAN UNDERPASS	32+76	6.0'		SPECIAL 3	PILASTER
D31 D32	PEDESTRIAN UNDERPASS	31+56	6.2'		SPECIAL 3	PILASTER

NOTES:
(1) SEE BRIDGE PLANS FOR PILASTER MOUNTED LIGHT DETAILS.

LIGHTING SYSTEM E
LIGHTING STANDARDS AND BASES

FEED POINT E

NO.	X	Y	TYPE	FOUNDATION (2)
E1	543337.21	153346.89	SPECIAL 1	DESIGN P MOD
E2	543351.51	153294.29	SPECIAL 1	DESIGN P MOD
E3	543298.04	153409.86	SPECIAL 1	DESIGN P MOD
E4	543283.27	153464.59	SPECIAL 1	DESIGN P MOD
E5	543273.07	153315.11	UNDERPASS LED	WALKWAY
E6	543253.33	153309.93	UNDERPASS LED	WALKWAY
E7	543235.96	153305.21	UNDERPASS LED	WALKWAY
E8	543216.98	153300.06	UNDERPASS LED	WALKWAY

NOTES:
(2) SEE PLATFORM PLANS FOR WALKWAY MOUNTED LIGHT DETAILS.

LIGHTING SYSTEM F
LIGHTING STANDARDS AND BASES

FEED POINT F

NO.	X	Y	TYPE	FOUNDATION
F1	543117.71	154193.79	SPECIAL 1	DESIGN P MOD
F2	543132.14	154141.18	SPECIAL 1	DESIGN P MOD
F3	543147.69	154032.64	SPECIAL 1	DESIGN P MOD
F4	543157.35	153994.69	SPECIAL 1	DESIGN P MOD
F5	543026.24	154364.78	SPECIAL 1	DESIGN P MOD
F6	543006.28	154440.02	SPECIAL 1	DESIGN P MOD
F7	543050.2	154465.63	SPECIAL 1	DESIGN P MOD
F8	543113.95	154561.63	SPECIAL 1	DESIGN P MOD

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LIGHTING PLAN

SHEET 339 OF 359

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PERMANENT LIGHTING SYSTEMS BREAKDOWN (1 OF 2)

SYSTEM	2104	2545														
	REMOVE LUMINAIRE	LIGHTING UNIT TYPE SPECIAL 1	LIGHTING UNIT TYPE SPECIAL 2	LIGHTING UNIT TYPE SPECIAL 3	LUMINAIRE (LED)	UPDERPASS LUMINAIRE TYPE LED	BANNER POLES	LIGHT FOUNDATION DESIGN E MOD	LIGHT FOUNDATION DESIGN P MOD	SERVICE CABINET TYPE L1	SERVICE CABINET TYPE L2	EQUIPMENT PAD B	UNDERGROUND CABLE SPLICE	JUNCTION BOX	HANDHOLE	GFCI RECEPTACLE
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
LIGHTING SYSTEM "A"	12		20		12		12	12	20		1	1	4		4	27
LIGHTING SYSTEM "B"			16				12	12	16		1	1	5		5	16
LIGHTING SYSTEM "C"		20	2				13	13	22		1	1	6		3	10
LIGHTING SYSTEM "D"				12		8				1		1	2	8	14	1
LIGHTING SYSTEM "E"		4				4			4	1		1		4	2	6
LIGHTING SYSTEM "F"		8							8		1	1			3	18
TOTALS	**12**	**32**	**38**	**12**	**12**	**12**	**37**	**37**	**70**	**2**	**4**	**6**	**17**	**12**	**31**	**78**

PERMANENT LIGHTING SYSTEMS BREAKDOWN (2 OF 2)

SYSTEM	2545									
	1" RIGID STEEL CONDUIT	1.5" PVC COATED RIGID STEEL CONDUIT	0.75" NON-METALLIC CONDUIT	0.75" NON-METALLIC CONDUIT (DIRECT BORE)	2" NON-METALLIC CONDUIT	2" NON-METALLIC CONDUIT (DIRECT BORE)	3" NON-METALLIC CONDUIT	UNDERGROUND WIRE 1 COND NO 2	UNDERGROUND WIRE 1 COND NO 6	UNDERGROUND WIRE 1 COND NO 8
	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT
LIGHTING SYSTEM "A"			2800		2500	270	80	810	37550	
LIGHTING SYSTEM "B"			2450		2150		80	50	26750	
LIGHTING SYSTEM "C"			2300		2300		30	50	26200	
LIGHTING SYSTEM "D"	120	50			1900	100	15	285	9350	1350
LIGHTING SYSTEM "E"	90		500		350		15	50	4140	480
LIGHTING SYSTEM "F"			850	100	610	260	15	375	8720	
TOTALS	**210**	**50**	**8900**	**100**	**9810**	**630**	**235**	**1620**	**112710**	**1830**

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PERMANENT LIGHTING							W
PROJECT	2545						
	LIGHTING SYSTEM "A"	LIGHTING SYSTEM "B"	LIGHTING SYSTEM "C"	LIGHTING SYSTEM "D"	LIGHTING SYSTEM "E"	LIGHTING SYSTEM "F"	REFINISH LIGHT STANDARD
	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	EACH
T.H. 41: S.P. 0202-108	1	1	0.4	1			
C.S.A.H. 61: 196-020-014			0.6				
NON-PARTICIPATING					1	1	6
TOTALS	**1**	**1**	**1**	**1**	**1**	**1**	**6**

THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPT. OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THE LIGHTING PORTION OF THIS PROJECT.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
8106D	EQUIPMENT PAD B
8129A	SHIM AND WASHER

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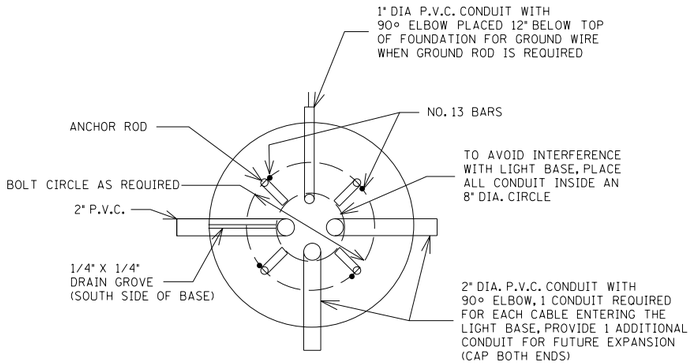
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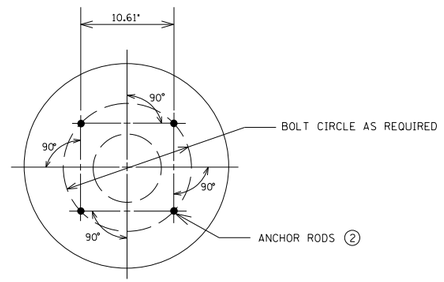
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LIGHTING PLAN

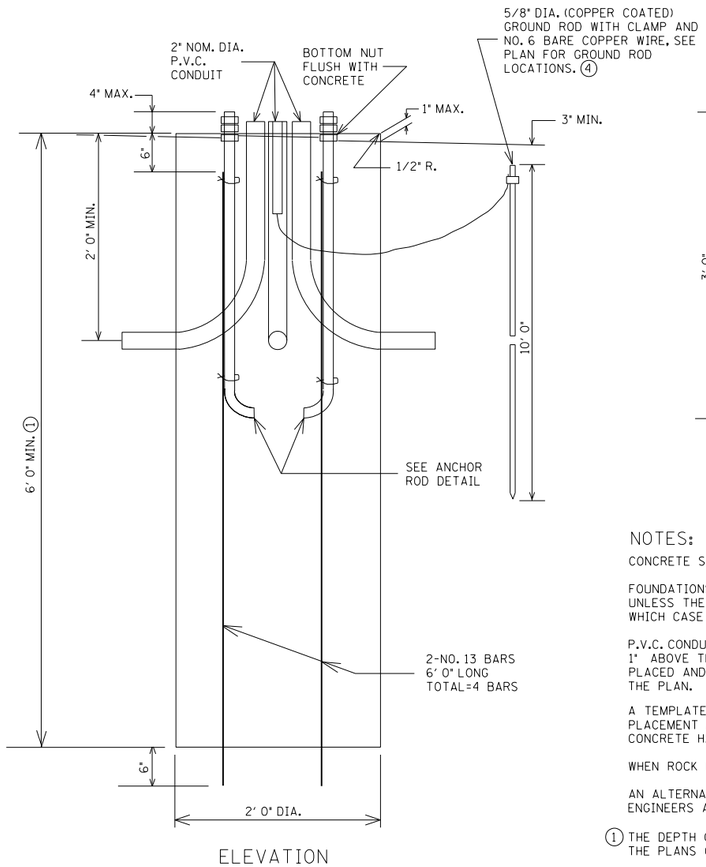
SHEET 341 OF 359



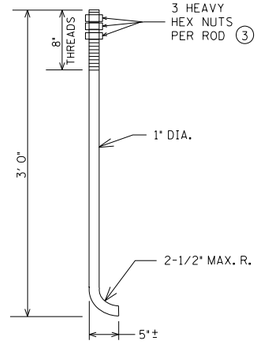
PLAN



ANCHOR ROD PLACEMENT



ELEVATION



ANCHOR ROD DETAIL
4 REQUIRED (2)

LIGHT FOUNDATION DESIGN E MOD.

NOTES:

CONCRETE SHALL BE MIX NO. 3Y43.

FOUNDATIONS MAY BE CONSTRUCTED IN AUGURED HOLES UNLESS THE NATURAL SOILS WILL NOT STAND OPEN, IN WHICH CASE FORMING WILL BE REQUIRED.

P.V.C. CONDUIT PER SPEC. 3803 SHALL BE PROJECTED 1" ABOVE THE FOUNDATION BEFORE THE MORTAR IS PLACED AND SHALL BE THE SIZE AND NUMBER SHOWN IN THE PLAN.

A TEMPLATE SHALL BE PROVIDED FOR ANCHOR ROD PLACEMENT AND SHALL BE LEFT IN PLACE UNTIL THE CONCRETE HAS SET.

WHEN ROCK IS ENCOUNTERED, SEE PLAN DETAILS.

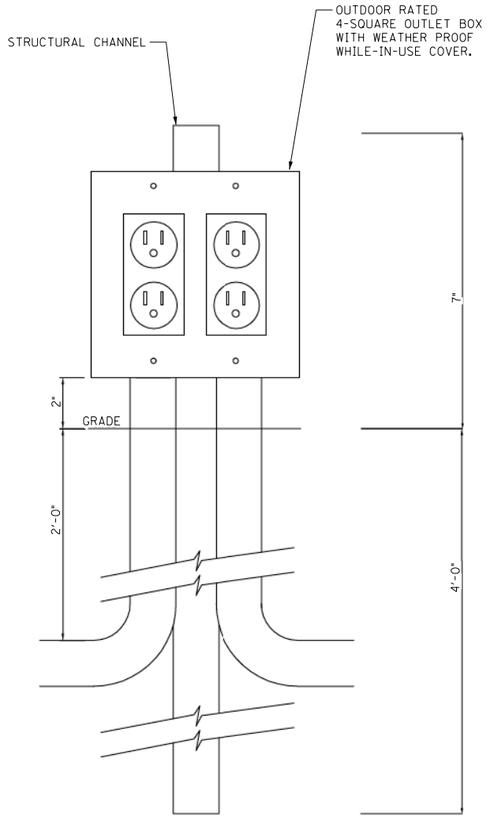
AN ALTERNATE PRECAST BASE MAY BE USED WITH THE ENGINEERS APPROVAL.

(1) THE DEPTH OF THE FOUNDATION MAY BE CHANGED IN THE PLANS OR SPECIAL PROVISIONS.

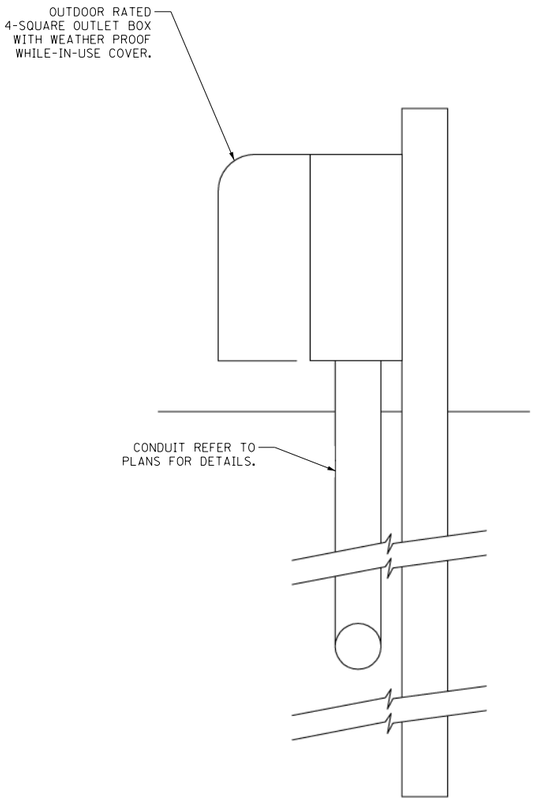
(2) ANCHOR RODS PER SPEC. 3385, TYPE B OR C SHALL BE PLACED AT RIGHT ANGLES TO THE DIRECTION OF THE MAST ARM. GALVANIZE THE TOP 1 FT. OF THE ANCHOR ROD AND NUTS PER SPEC. 3392.

(3) WRAP THREADS OF ANCHOR RODS BELOW BOTTOM NUT WITH 3 LAYERS OF PLASTIC ELECTRICAL TAPE.

(4) PLACE GROUND ROD 3" TO 6" DEEP AND WITHIN 1' OF BASE.



GFCI TYPE RECEPTACLE RP1-RP14 - FRONT ELEVATION



GFCI TYPE RECEPTACLE RP1-RP14 - SIDE ELEVATION

GFCI RECEPTACLE

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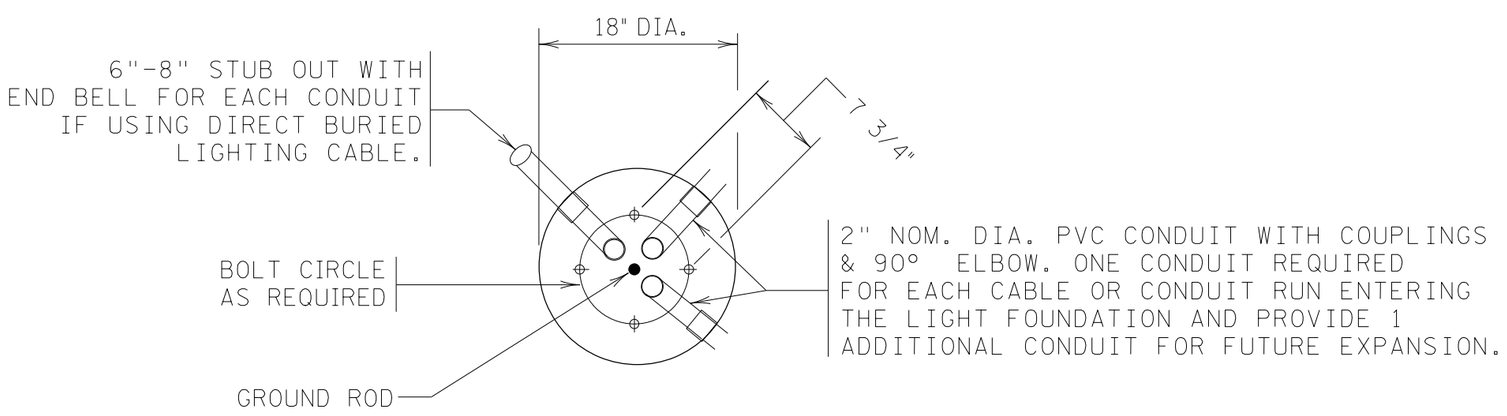
MICHAEL S. LARSON
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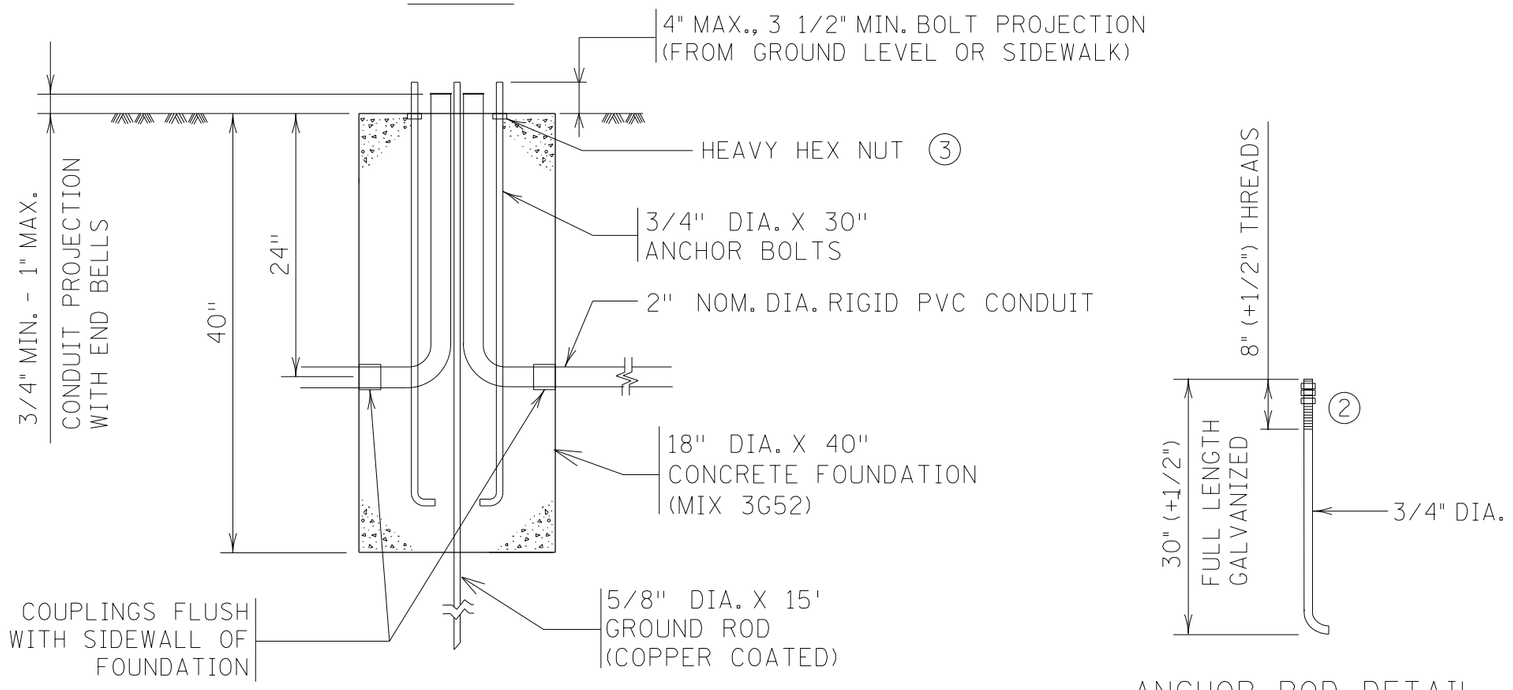
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SHEET 342 OF 359

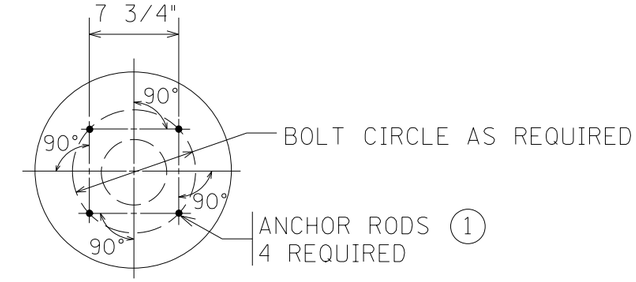
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PLAN



ELEVATION



ANCHOR ROD PLACEMENT

ANCHOR ROD DETAIL

(SPEC. 3385 TYPE B)

NOTES:

USE CONCRETE MIX 3G52.

CONSTRUCT FOUNDATIONS IN ACCORDANCE WITH 2545.

EXCAVATE AND BACKFILL IN ACCORDANCE WITH 2451 & 2565.

WRAP AT LEAST 2 IN OF ANCHOR ROD THREADS DIRECTLY BELOW THE EMBEDDED IN CONCRETE HEAVY HEX WITH 3 LAYERS OF VINYL ELECTRIC TAPE.

PROTECT THE ANCHOR ROD THREADS ABOVE THE FOUNDATION TO AVOID CONTAMINATION DURING CONCRETE POURING.

(1) PLACE ANCHOR RODS AT RIGHT ANGLES TO THE DIRECTION OF THE MAST ARM.

(2) PROVIDE HARDWARE REQUIRED BY THE POLE MANUFACTURER, IN ACCORDANCE WITH 2545 AND AS SHOWN IN THE PLAN.

(3) PLACE A HEAVY HEX NUT EMBEDDED IN CONCRETE FLUSH WITH THE TOP OF THE FOUNDATION ON EACH ANCHOR ROD.

LIGHT FOUNDATION DESIGN P MOD.

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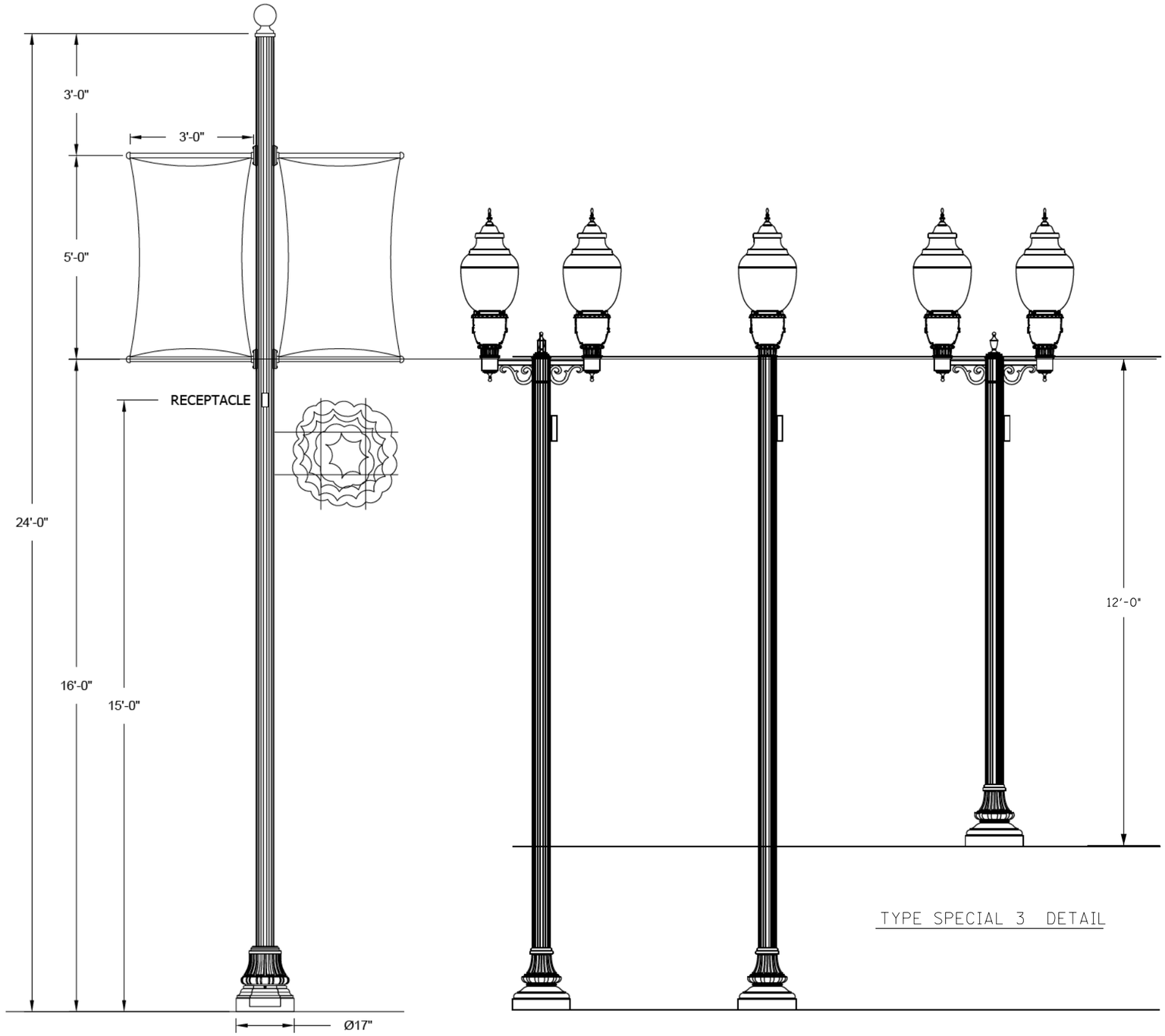
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BANNER POLE DETAIL

TYPE SPECIAL 3 DETAIL

TYPE SPECIAL 2 DETAIL

TYPE SPECIAL 1 DETAIL

NOTE:

ALL TYPE SPECIAL LIGHTING UNITS AND BANNER POLES SHALL FEATURE A GFCI OUTLET MOUNTED AT 15' ABOVE THE SURFACE.

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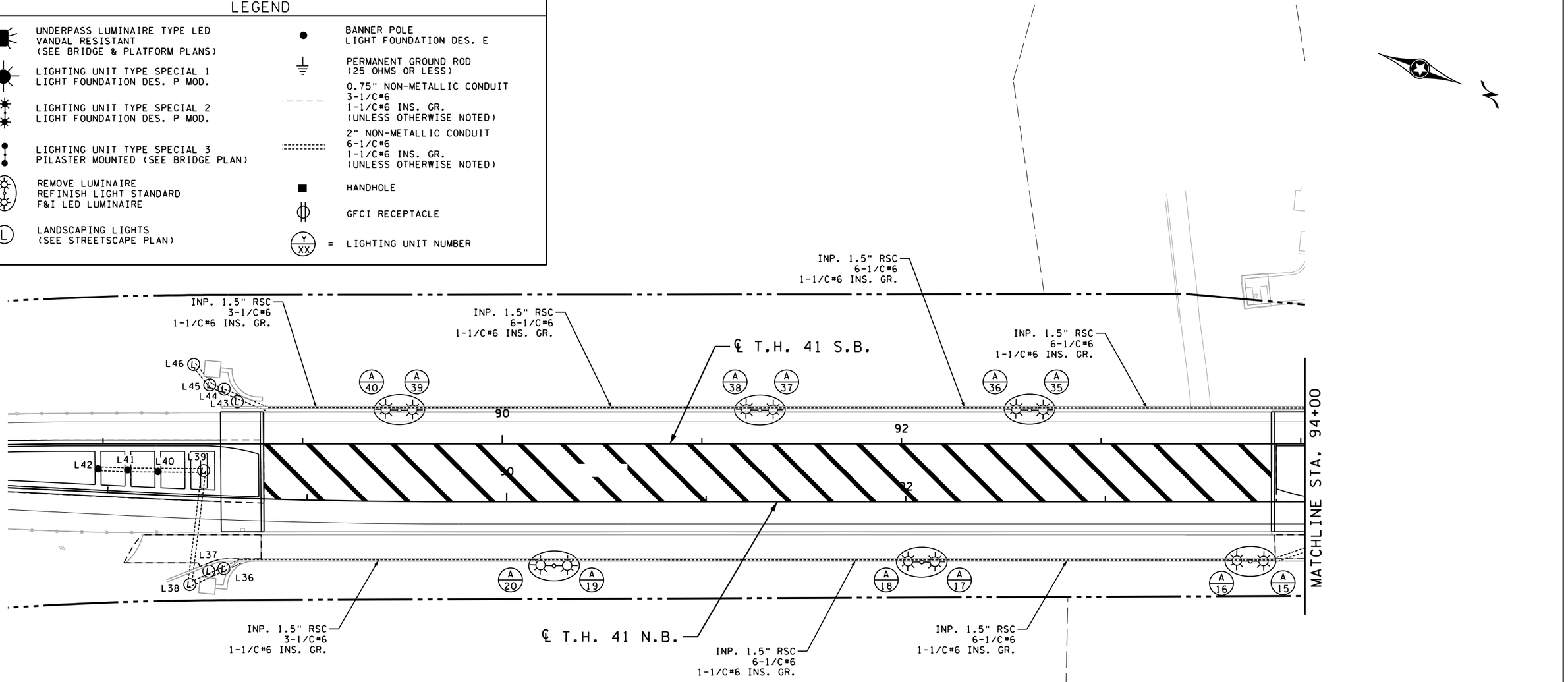
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LIGHTING PLAN

SHEET 344 OF 359

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LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 2 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 3 PILASTER MOUNTED (SEE BRIDGE PLAN)
- REMOVE LUMINAIRE REFINISH LIGHT STANDARD F&I LED LUMINAIRE
- LANDSCAPING LIGHTS (SEE STREETSCAPE PLAN)
- BANNER POLE LIGHT FOUNDATION DES. E
- PERMANENT GROUND ROD (25 OHMS OR LESS)
- 0.75" NON-METALLIC CONDUIT 3-1/C#6 1-1/C#6 INS. GR. (UNLESS OTHERWISE NOTED)
- 2" NON-METALLIC CONDUIT 6-1/C#6 1-1/C#6 INS. GR. (UNLESS OTHERWISE NOTED)
- HANDHOLE
- GFCI RECEPTACLE
- (Y / XX) = LIGHTING UNIT NUMBER



GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF CONNECTION OF POWER FOR THE LIGHTING SYSTEMS WITH CHASKA PUBLIC UTILITY. CONTACT ANDREW ROMINE AT 952-227-7710.
2. THIS PLAN SPECIFIES CONDUIT SIZE, TYPE AND GENERAL LOCATIONS. EXACT LOCATIONS OF CONDUIT, HANDHOLES AND CABINETS WILL BE DETERMINED IN THE FIELD.
3. ALL CONDUIT SHALL BE TRENCHED UNLESS OTHERWISE NOTED. REFER TO STREETSCAPE PLANS TO AVOID STREETSCAPING CONFLICT AND FOR STREETSCAPING ELECTRICAL NEEDS.
4. SEE SPECIAL PROVISIONS FOR THE LIGHTING UNITS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO UTILIZE THE GOPHER STATE ONE CALL EXCAVATION NOTICE SYSTEM FOR ALL UTILITY LOCATIONS.

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BOLTON & MENK

12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

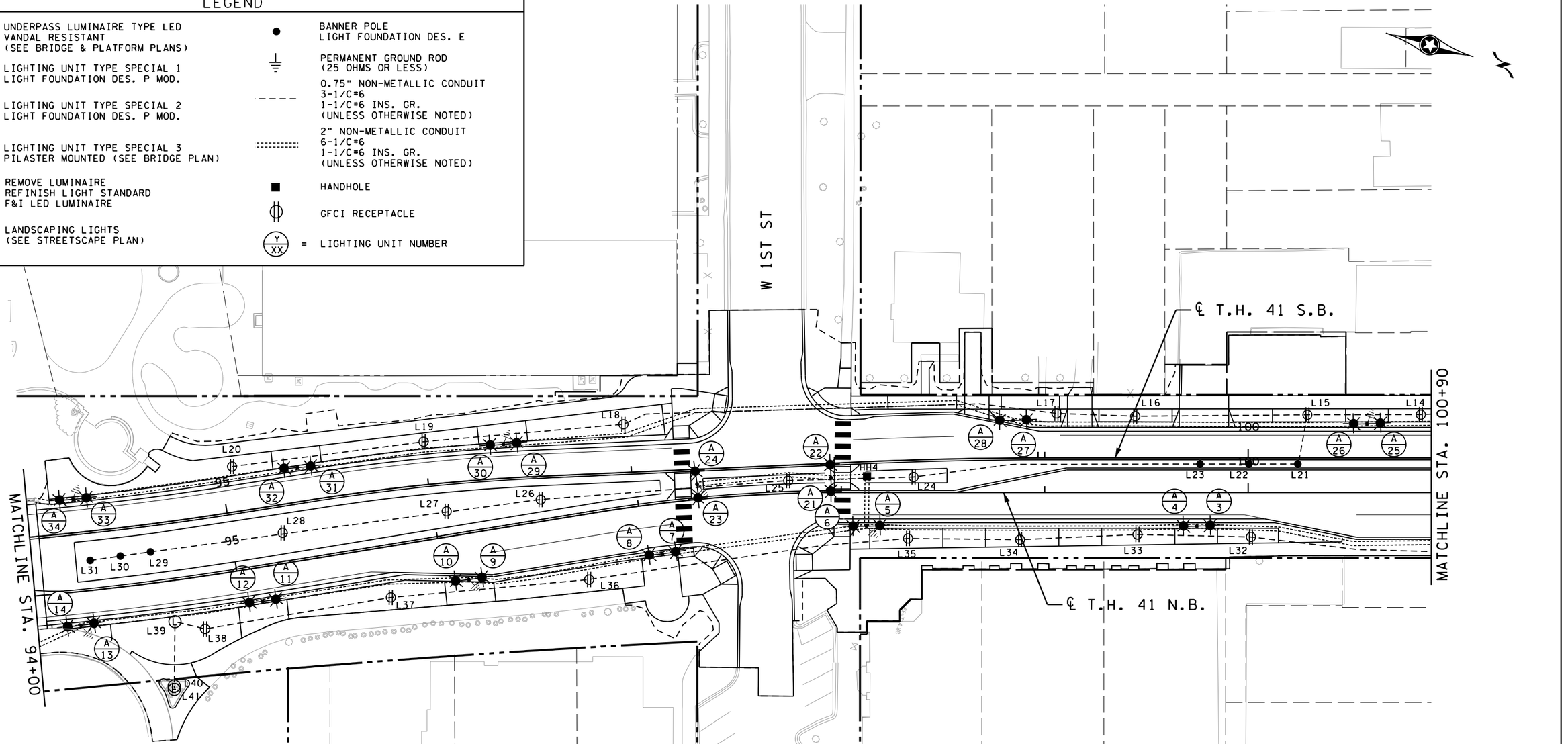
DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

SHEET 345 OF 359

LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 2 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 3 PILASTER MOUNTED (SEE BRIDGE PLAN)
- REMOVE LUMINAIRE REFINISH LIGHT STANDARD F&I LED LUMINAIRE
- (L) LANDSCAPING LIGHTS (SEE STREETSCAPE PLAN)
- BANNER POLE LIGHT FOUNDATION DES. E
- PERMANENT GROUND ROD (25 OHMS OR LESS)
- 0.75" NON-METALLIC CONDUIT 3-1/C#6 1-1/C#6 INS. GR. (UNLESS OTHERWISE NOTED)
- 2" NON-METALLIC CONDUIT 6-1/C#6 1-1/C#6 INS. GR. (UNLESS OTHERWISE NOTED)
- HANDHOLE
- GFCI RECEPTACLE
- (Y / XX) = LIGHTING UNIT NUMBER



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5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO UTILIZE THE GOPHER STATE ONE CALL EXCAVATION NOTICE SYSTEM FOR ALL UTILITY LOCATIONS.

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BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 346 OF 359

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W 2ND ST

E 2ND ST

W 3RD ST

E 3RD ST

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 100+90

MATCHLINE STA. 108+00

2-3" NMC
24-1/C#6
6-1/C#6 INS. GR.

1" RSC
2-1/C#8
1-1/C#8 INS. GR.

2" NMC
2-1/C#8
1-1/C#8 INS. GR.

3" NMC
9-1/C#6
2-1/C#8
2-1/C#6 INS. GR.
1-1/C#8 INS. GR.

HH1 HH2 HH3 HH26 HH27

101 101 105 105

CITY PROPERTY

Ⓐ LIGHT SYSTEM A
FEED POINT A
SERVICE CABINET - TYPE L2
EQUIPMENT PAD B
2" NMC TO SOP
3-1/C#2

Ⓔ LIGHT SYSTEM E
FEED POINT E
SERVICE CABINET - TYPE L1
EQUIPMENT PAD B
2" NMC TO SOP
3-1/C#2

Ⓖ SOURCE OF POWER:
GROUND MOUNTED TRANSFORMER
(CHASKA ELECTRIC UTILITY)
2" NMC (DIR. BORE) FROM SOP WITH:
3-1/C#2

Ⓚ SOURCE OF POWER:
POLE MOUNTED TRANSFORMER
(CHASKA ELECTRIC UTILITY)
2" NMC FROM SOP WITH:
3-1/C#2

LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 2 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 3 PILASTER MOUNTED (SEE BRIDGE PLAN)
- REMOVE LUMINAIRE REFINISH LIGHT STANDARD F&I LED LUMINAIRE
- LANDSCAPING LIGHTS (SEE STREETSCAPE PLAN)
- BANNER POLE LIGHT FOUNDATION DES. E
- PERMANENT GROUND ROD (25 OHMS OR LESS)
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- 2" NON-METALLIC CONDUIT 6-1/C#6 1-1/C#6 INS. GR. (UNLESS OTHERWISE NOTED)
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- GFCI RECEPTACLE
- (Y / XX) = LIGHTING UNIT NUMBER

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REV.	BY	DATE

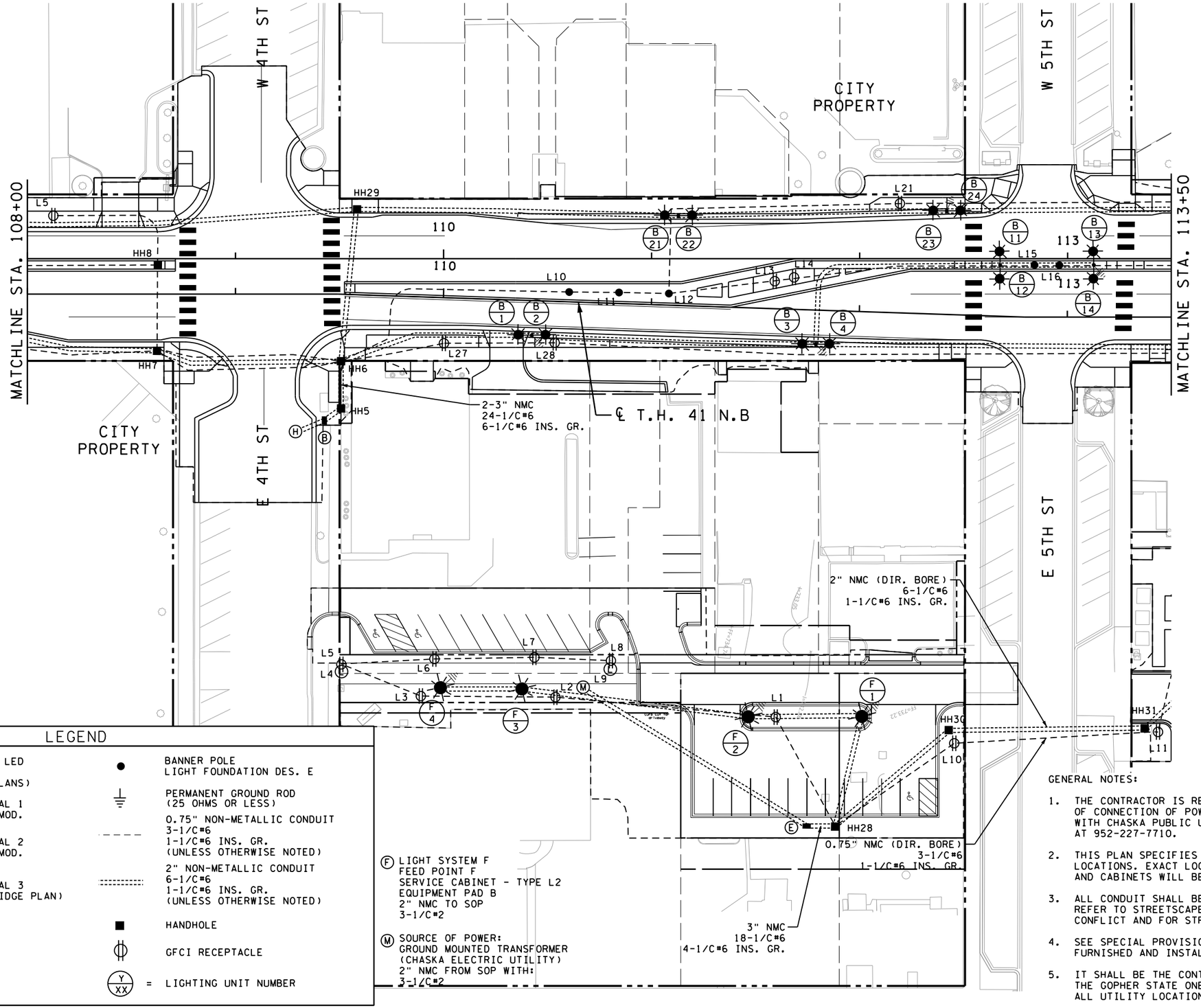
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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED ABM
DRAWN ABM
CHECKED MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

SHEET 347 OF 359



Ⓑ LIGHT SYSTEM B
FEED POINT B
SERVICE CABINET - TYPE L2
EQUIPMENT PAD B
2" NMC TO SOP
3-1/C#2

Ⓗ SOURCE OF POWER:
UNDERGROUND TRANSFORMER
(CHASKA ELECTRIC UTILITY)
2" NMC FROM SOP WITH:
3-1/C#2

Ⓕ LIGHT SYSTEM F
FEED POINT F
SERVICE CABINET - TYPE L2
EQUIPMENT PAD B
2" NMC TO SOP
3-1/C#2

Ⓜ SOURCE OF POWER:
GROUND MOUNTED TRANSFORMER
(CHASKA ELECTRIC UTILITY)
2" NMC FROM SOP WITH:
3-1/C#2

LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 2 LIGHT FOUNDATION DES. P MOD.
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- REMOVE LUMINAIRE REFINISH LIGHT STANDARD F&I LED LUMINAIRE
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- GFCI RECEPTACLE
- (Y / XX) = LIGHTING UNIT NUMBER

GENERAL NOTES:

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SCALE 0 25 50 FEET

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	DRAWN	CHECKED
ABM	ABM	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 348 OF 359

LEGEND

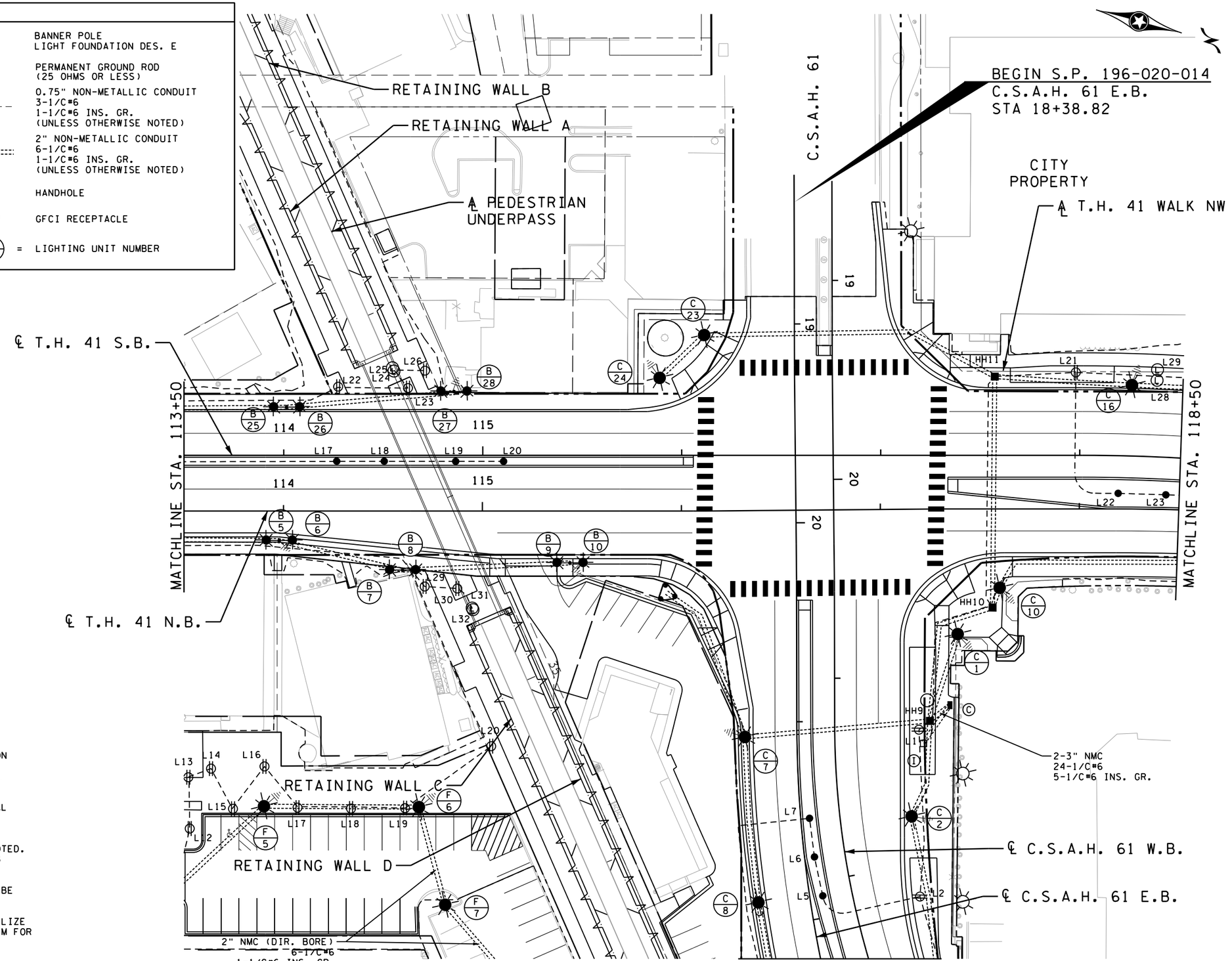
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- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
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- LIGHTING UNIT TYPE SPECIAL 3 PILASTER MOUNTED (SEE BRIDGE PLAN)
- REMOVE LUMINAIRE REFINISH LIGHT STANDARD F&I LED LUMINAIRE
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- HANDHOLE
- GFCI RECEPTACLE
- (Y / XX) = LIGHTING UNIT NUMBER

(C) LIGHT SYSTEM C
FEED POINT C
SERVICE CABINET - TYPE L2
EQUIPMENT PAD B
2" NMC TO SOP
3-1/C#2

(I) SOURCE OF POWER:
UNDERGROUND TRANSFORMER
(DAKOTA ELECTRIC UTILITY)
2" NMC FROM SOP WITH:
3-1/C#2

GENERAL NOTES:

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6. SEE SHEETS 352-353 FOR UNDERPASS AREA LIGHTING.



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SCALE FEET

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

SHEET 349 OF 359

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END S.P. 1008-87,
S.P. 196-010-017,
S.P. 196-010-018
T.H. 41 N.B. STA 123+37.54

℄ T.H. 41 S.B.

℄ T.H. 41 N.B.

MATCHLINE STA. 118+50

WALNUT ST

120

120

125

125

L24

L25

L26

L30

L31

C 11

C 12

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C 14

C 15

C 17

C 18

C 19

C 20

C 21

C 22

LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
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SCALE FEET

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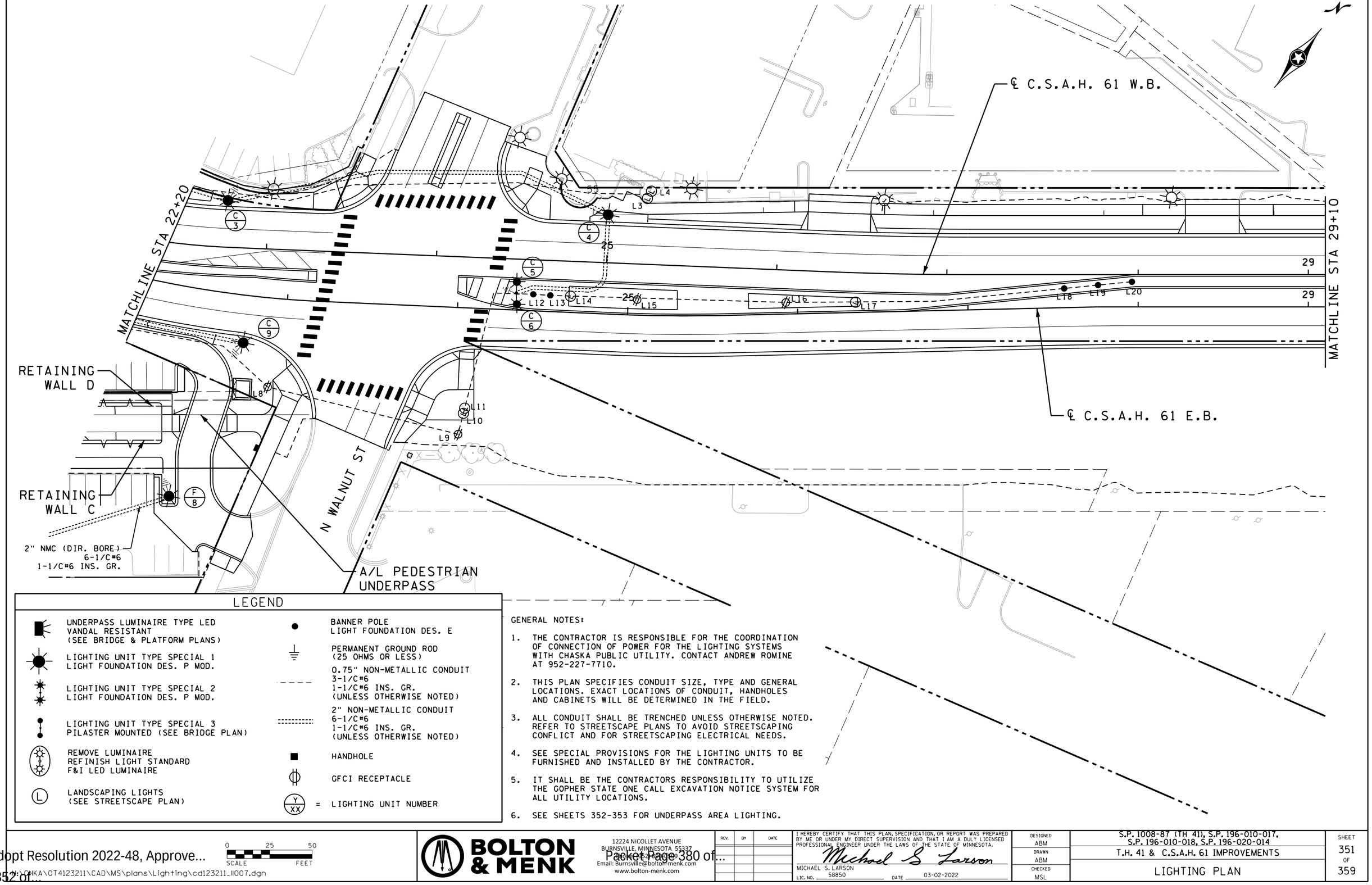
Michael S Larson

MICHAEL S. LARSON
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CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

SHEET 350 OF 359



LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
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6. SEE SHEETS 352-353 FOR UNDERPASS AREA LIGHTING.

SCALE 0 25 50 FEET

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

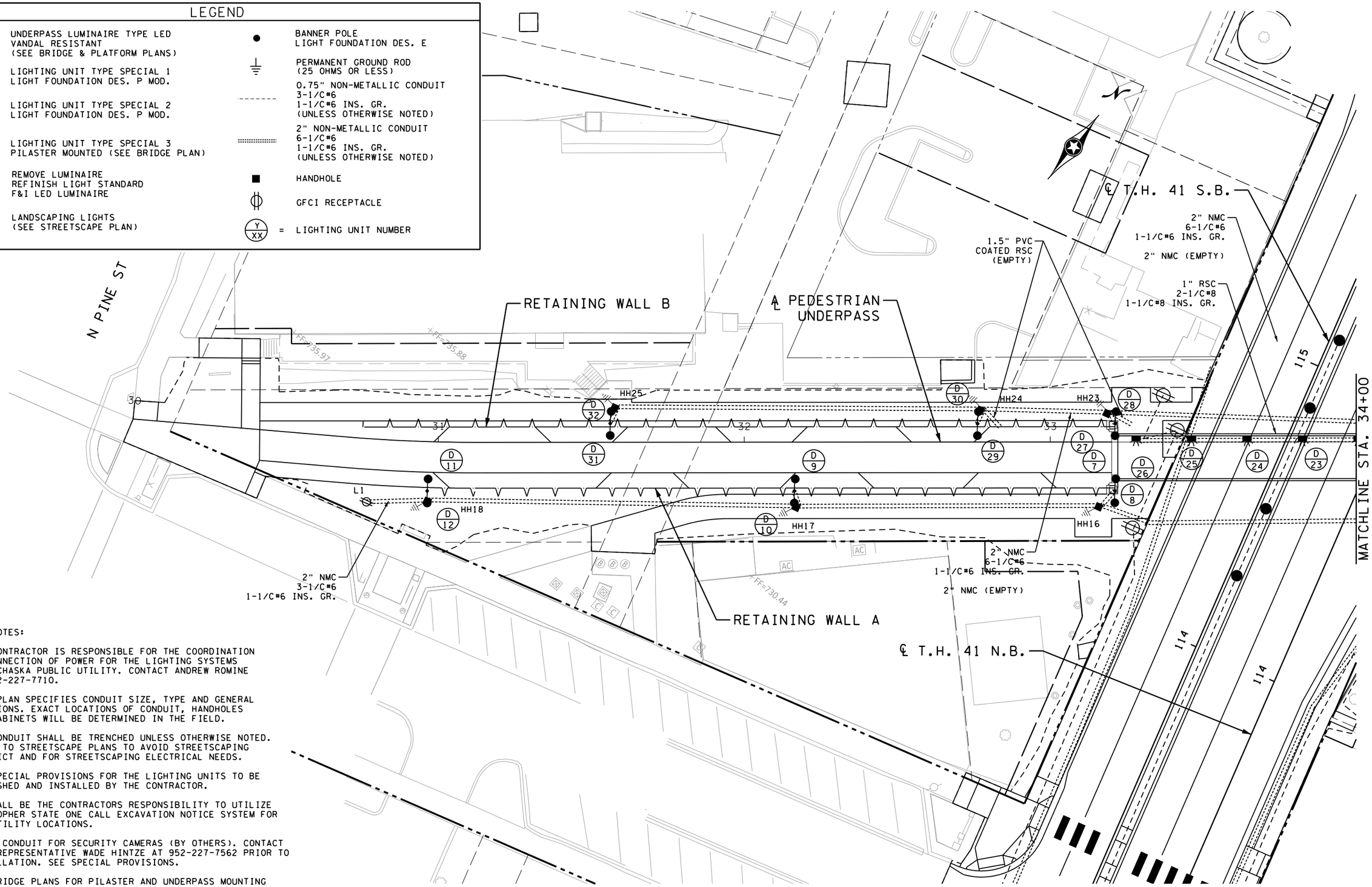
SHEET 351 OF 359

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7.B. Adopt Resolution 2022-48, Approve...
Packet Page 380 of...
Page 352 of...

LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 2 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 3 PILASTER MOUNTED (SEE BRIDGE PLAN)
- REMOVE LUMINAIRE REFINISH LIGHT STANDARD F&I LED LUMINAIRE
- LANDSCAPING LIGHTS (SEE STREETSCAPE PLAN)
- BANNER POLE LIGHT FOUNDATION DES. E
- PERMANENT GROUND ROD (25 OHMS OR LESS)
- 0.75" NON-METALLIC CONDUIT 3-1/C#6 1-1/C#6 INS. GR. (UNLESS OTHERWISE NOTED)
- 2" NON-METALLIC CONDUIT 6-1/C#6 1-1/C#6 INS. GR. (UNLESS OTHERWISE NOTED)
- HANDHOLE
- GFCI RECEPTACLE
- (Y / XX) = LIGHTING UNIT NUMBER



GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF CONNECTION OF POWER FOR THE LIGHTING SYSTEMS WITH CHASKA PUBLIC UTILITY. CONTACT ANDREW ROMINE AT 952-227-7710.
2. THIS PLAN SPECIFIES CONDUIT SIZE, TYPE AND GENERAL LOCATIONS. EXACT LOCATIONS OF CONDUIT, HANDHOLES AND CABINETS WILL BE DETERMINED IN THE FIELD.
3. ALL CONDUIT SHALL BE TRENCHED UNLESS OTHERWISE NOTED. REFER TO STREETSCAPE PLANS TO AVOID STREETSCAPING CONFLICT AND FOR STREETSCAPING ELECTRICAL NEEDS.
4. SEE SPECIAL PROVISIONS FOR THE LIGHTING UNITS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO UTILIZE THE GOPHER STATE ONE CALL EXCAVATION NOTICE SYSTEM FOR ALL UTILITY LOCATIONS.
6. EMPTY CONDUIT FOR SECURITY CAMERAS (BY OTHERS). CONTACT CITY REPRESENTATIVE WADE HINTZE AT 952-227-7562 PRIOR TO INSTALLATION. SEE SPECIAL PROVISIONS.
7. SEE BRIDGE PLANS FOR PILASTER AND UNDERPASS MOUNTING AND CONDUIT ROUTING DETAILS.

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BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
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www.bolton-menk.com

REV.	BY	DATE

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Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

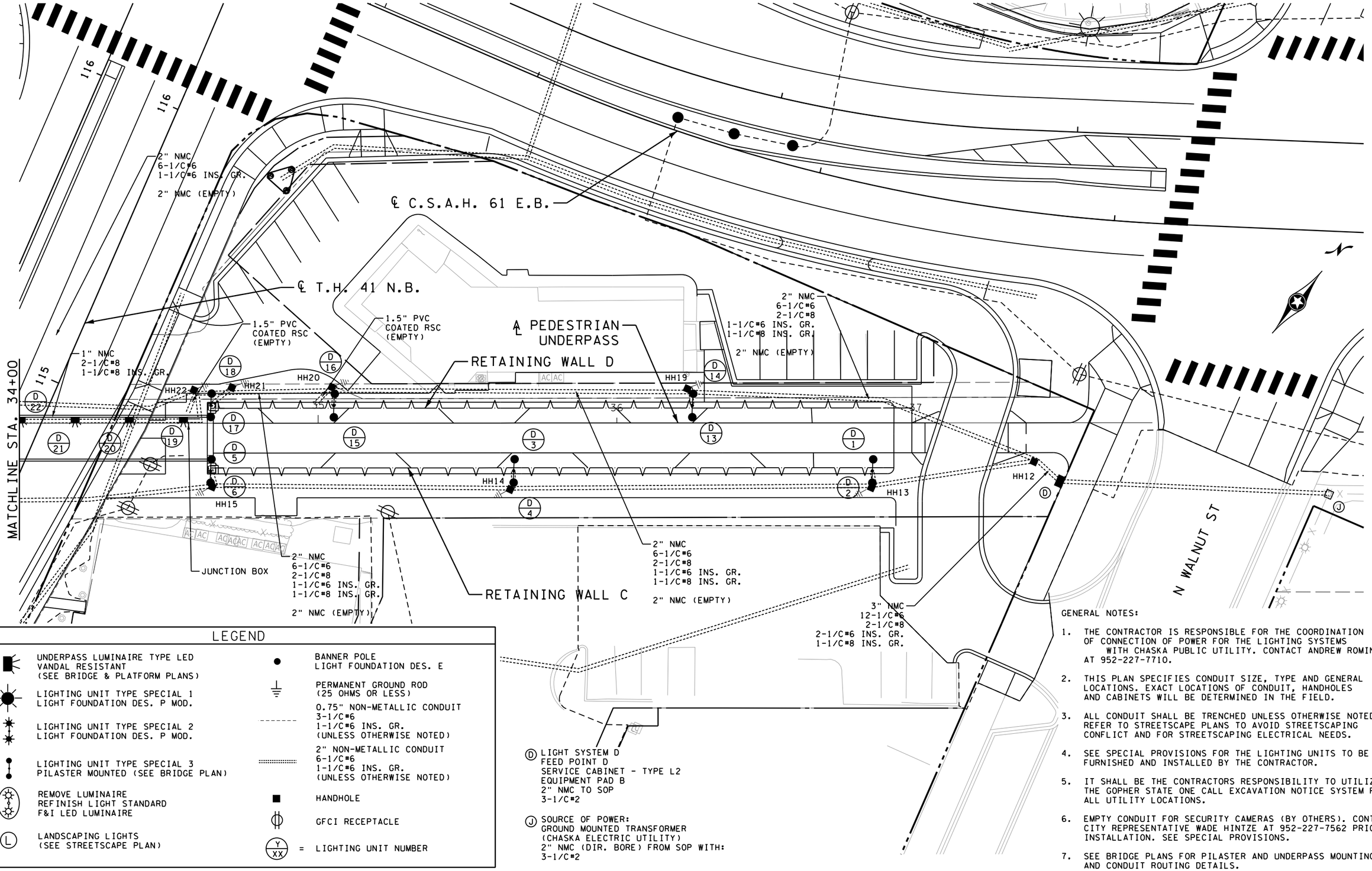
DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 352 OF 359



LEGEND

- UNDERPASS LUMINAIRE TYPE LED VANDAL RESISTANT (SEE BRIDGE & PLATFORM PLANS)
- LIGHTING UNIT TYPE SPECIAL 1 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 2 LIGHT FOUNDATION DES. P MOD.
- LIGHTING UNIT TYPE SPECIAL 3 PILASTER MOUNTED (SEE BRIDGE PLAN)
- REMOVE LUMINAIRE REFINISH LIGHT STANDARD F&I LED LUMINAIRE
- LANDSCAPING LIGHTS (SEE STREETSCAPE PLAN)
- BANNER POLE LIGHT FOUNDATION DES. E
- PERMANENT GROUND ROD (25 OHMS OR LESS)
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- (Y / XX) = LIGHTING UNIT NUMBER

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7. SEE BRIDGE PLANS FOR PILASTER AND UNDERPASS MOUNTING AND CONDUIT ROUTING DETAILS.

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

SHEET 353 OF 359

FD. PT. A
PAD MOUNTED SERVICE CABINET L2
120/240 VOLT

8 CIRCUIT BREAKERS

R W B R W B R W B R W B R W B R W B R W B R W B

HH1

3-1/C*6 HH2 3-1/C*6 HH2 3-1/C*6

3-1/C*6 3-1/C*6

3-1/C*6 3-1/C*6 3-1/C*6

HH3 HH4 HH3 HH2 HH3

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L13 L14 L15 L16 L17 L18 L19 L20 L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33 L34 L35 L36 L37 L38 L39 L40 L41

G1 G3 G5 G7 G9 G11 G13 G21 G23 G25 G27 G29 G31 G33 G41 G43 G45 G47 G49 G51

A 1 A 2 A 3 A 4 A 5 A 6 A 7 A 8 A 9 A 10 A 11 A 12 A 13 A 14 A 15 A 16 A 17 A 18 A 19 A 20 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 30 A 31 A 32 A 33 A 34 A 35 A 36 A 37 A 38 A 39 A 40 A 41 A 42 A 43 A 44 A 45 A 46 A 47 A 48 A 49 A 50 A 51 A 52

A = LUMINAIRE
G = GFCI OUTLET
L = LANDSCAPING FEATURE (SEE STREETSCAPING PLANS)

B AND R DENOTE CURRENT CARRYING CONDUCTORS
W DENOTES NEUTRAL CONDUCTOR

BOLTON & MENK
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 354 OF 359

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FD. PT. B
PAD MOUNTED SERVICE CABINET L2
120/240 VOLT

8 CIRCUIT BREAKERS

R W B

HH5

3-1/C*6

HH6

HH7

HH8

HH29

B = LUMINAIRE
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L = LANDSCAPING FEATURE (SEE STREETSCAPING PLANS)

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MICHAEL S. LARSON
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S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 355 OF 359

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FD. PT. C
PAD MOUNTED SERVICE CABINET L2
120/240 VOLT

8 CIRCUIT BREAKERS

R W B

HH9

HH10 — 3-1/C*6

HH11

3-1/C*6

C = LUMINAIRE
G = GFCI OUTLET
L = LANDSCAPING FEATURE (SEE STREETSCAPING PLANS)

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	ABM
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CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 356 OF 359

FD. PT. D
PAD MOUNTED SERVICE CABINET L2
120/240 VOLT

5 CIRCUIT BREAKERS

HH12

R W B R W B R W B R W B R W B

2-1/C*8

3-1/C*6

3-1/C*6

3-1/C*6

3-1/C*6

THIS CIRCUIT SHALL BYPASS PEC

JB

HH13 D 1 D 2
HH14 D 3 D 4
HH15 D 5 D 6
HH16 D 7 D 8
HH17 D 9 D 10
HH18 D 11 D 12

D 25 D 23 D 21 D 19
D 26 D 24 D 22 D 20

HH13 HH14 G3 HH15 HH16 G7 HH17 HH18 G11
G1 G5 G9 L1

HH25 HH24 G29 HH23 HH22 HH21 G17 HH20 HH19 G13
G31 G27 G15

HH25 D 31 D 32
HH24 D 29 D 30
HH23 D 27 D 28
HH22
HH21 D 17 D 18
HH20 D 15 D 16
HH19 D 13 D 14

D = LUMINAIRE
G = GFCI OUTLET
L = LANDSCAPING FEATURE (SEE STREETSACPING PLANS)

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

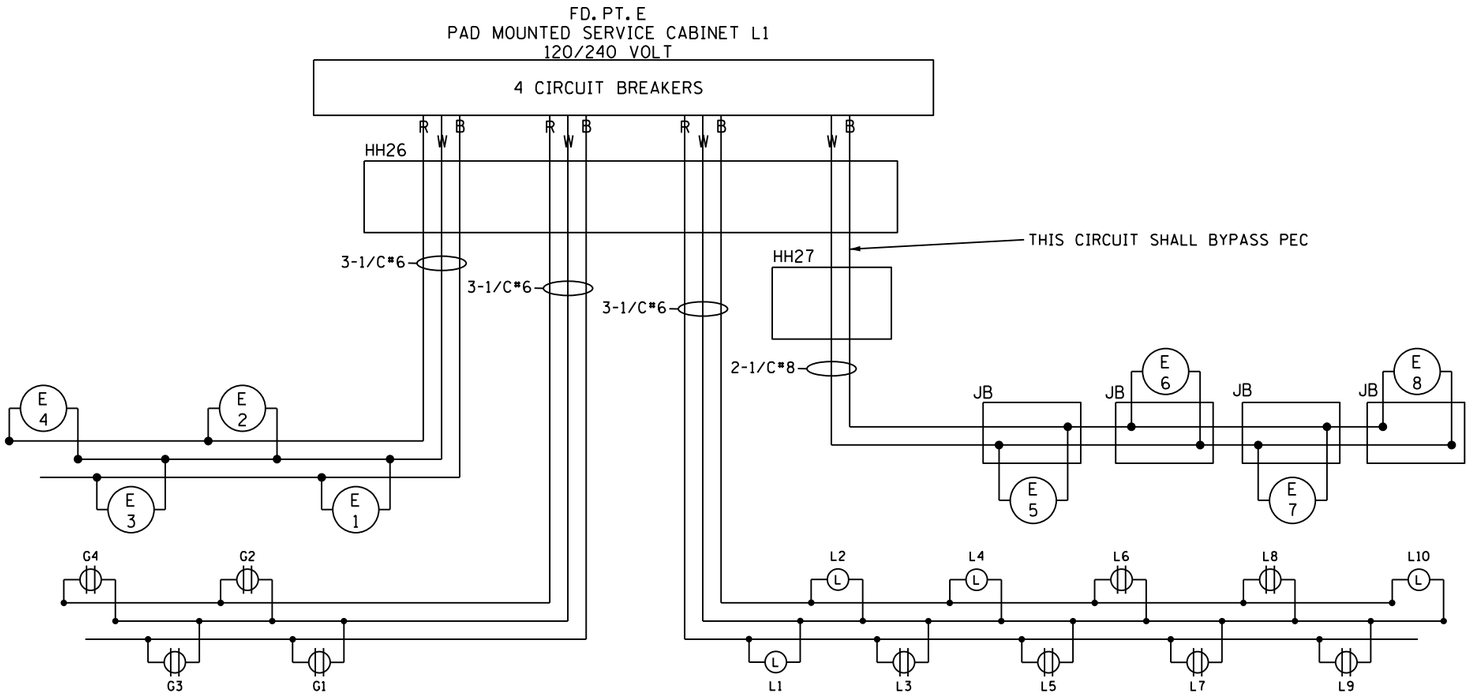
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 357 OF 359

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E = LUMINAIRE
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L = LANDSCAPING FEATURE (SEE STREETSACPING PLANS)

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

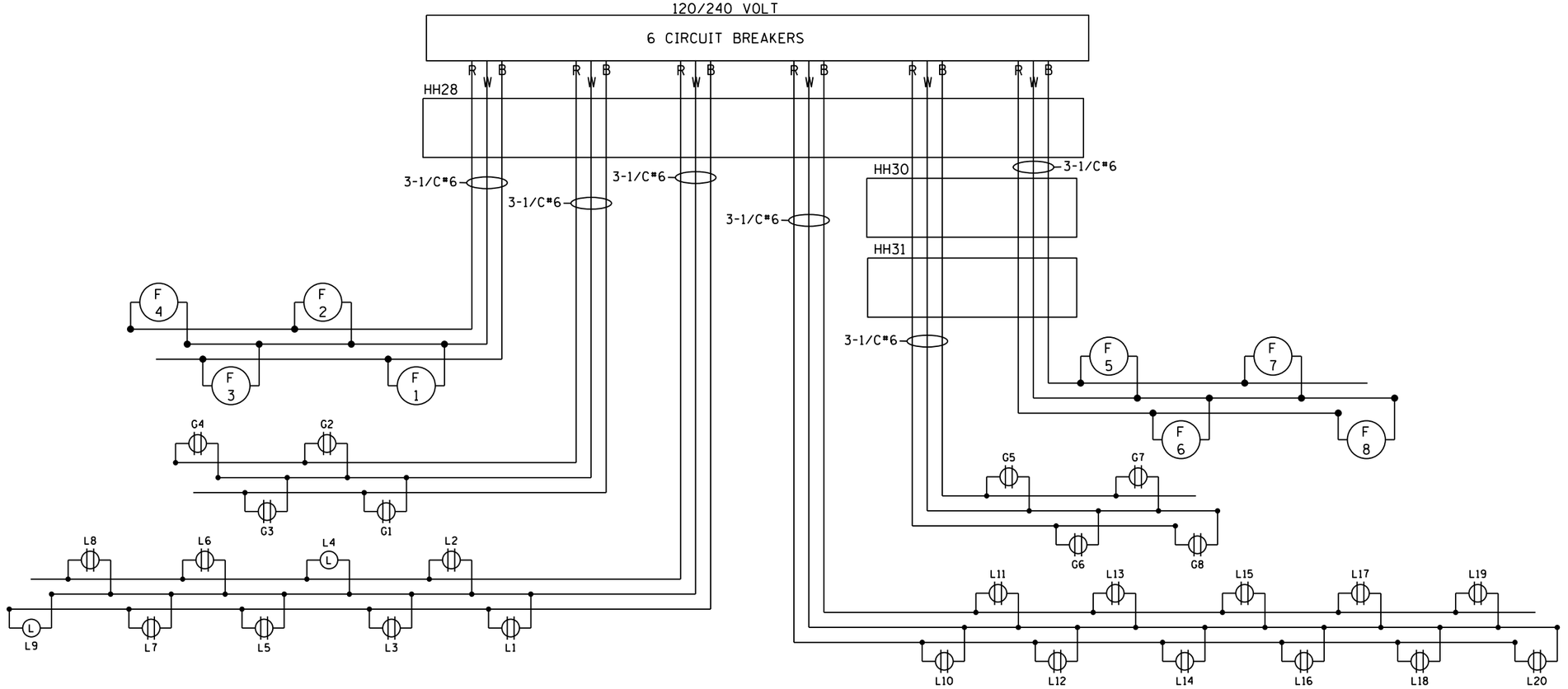
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DRAWN	ABM
CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
LIGHTING PLAN

SHEET 358 OF 359

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FD. PT. F
PAD MOUNTED SERVICE CABINET L2
120/240 VOLT



F = LUMINAIRE
G = GFCI OUTLET
L = LANDSCAPING FEATURE (SEE STREETSACPING PLANS)

B AND R DENOTE CURRENT CARRYING CONDUCTORS
W DENOTES NEUTRAL CONDUCTOR

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Michael S. Larson

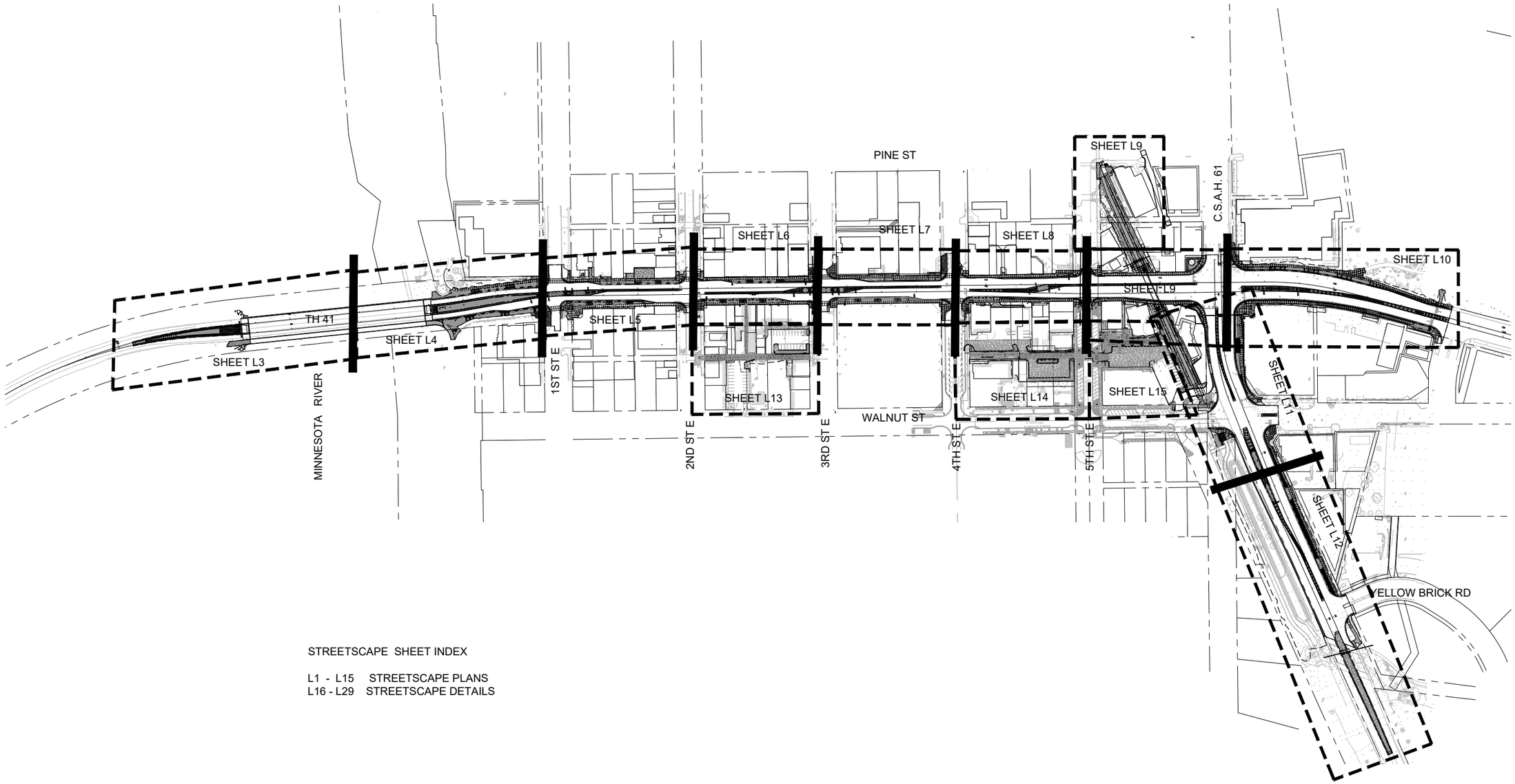
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

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DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

LIGHTING PLAN

SHEET 359 OF 359



STREETSCAPE SHEET INDEX

L1 - L15 STREETSCAPE PLANS
L16 - L29 STREETSCAPE DETAILS

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REV.	BY	DATE

Landscape Architecture / Planning / Urban Design
Minneapolis, Minnesota
www.hkgi.com

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PAUL PAIGE, LA
LIC. NO. 23594 DATE 03/08/2022

DESIGNED	AB, TS
DRAWN	AB, TS
CHECKED	PP

S.P.1008-87(TH 41), S.P.196-010-017,
S.P.196-010-018, S.P.196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STREETSCAPE PLAN

SHEET L1 OF L29

M:\Chaska\020-053 Chaska Hwy61 and 41 Streetscape\5 Autocad\Construction Documents\STREETSCAPE BASE.dwg, 3/18/2022 4:25:47 PM, Amy

STREETSCAPE																T
			2411	2411	2475	2475	2521	2531	2540	2540	2540	2540	2540	2540	2540	2574	2574
ROADWAY	LOC	SHEET	CONCRETE FOOTING (KIOSK)	CONCRETE FOOTING TYPE 1 (GATEWAY)	ORNAMENTAL METAL RAILING	ORNAMENTAL METAL RAILING TYPE SPECIAL	BRICK WALK	CONCRETE CURB SPECIAL DESIGN	BICYCLE RACK	WASTE RECEPTACLE	BOLLARD	BENCH	MASONARY PILLAR	MASONARY PILLAR TYPE 1	MASONARY SEAT WALL	ROOTING TOPSOIL BORROW	SODDING TYPE SALT TOLERANT
			EACH	EACH	LIN FT	LIN FT	SQ FT	LIN FT	EACH	EACH	EACH	EACH	EACH	EACH	LIN FT	CU YD	SQ YD
TH 41: S.P. 196-010-018																	
T.H. 41																	
	TH 41	SHEET L3					1355	274								117.6	
	TH 41	SHEET L4	1		336		3730	1022					8		63	149.3	
	TH 41	SHEET L5			236		2709	420	4	1	9	3	11		53	129	
	TH 41	SHEET L6	1		281		2035	321	4	2	8	4	10		33	86.1	
	TH 41	SHEET L7			118		1956	232	7	1	8	2			41	51.9	
	TH 41	SHEET L8			115		1755	167			4		4		23	180.8	
	TH 41/UNDER PASS	SHEET L9	2			54	767	60	6	4	14	2	18	2	24	165.8	
	TH 41 NORTH	SHEET L10				58.5	3840			1	19	2	7	2	4	72.2	
	UNDERPASS	SHEET L11							8	1							
	CASH 61	SHEET L12															
	2-3RD PARKING LOT	SHEET L13		4		54	1183				4					102	
	4-5TH PARKING LOT	SHEET L14		5		90	899		2	1	4	2				362	
	5TH PARKING LOT	SHEET L15		5		54	981			1	4	2	11			145	25
SUBTOTALS			**4**	**14**	**1086**	**310.5**	**21210**	**2496**	**31**	**12**	**74**	**17**	**69**	**4**	**241**	**1561.7**	**25**
C.S.A.H. 61: (100% CITY)																	
C.S.A.H. 61																	
	TH 41	SHEET L3															
	TH 41	SHEET L4															
	TH 41	SHEET L5															
	TH 41	SHEET L6															
	TH 41	SHEET L7															
	TH 41	SHEET L8															
	TH 41/UNDER PASS	SHEET L9															
	TH 41 NORTH	SHEET L10															
	CASH 61	SHEET L11	1			45	1296	132	2	1	14	1	6	2	12	195.9	50
	CASH 61	SHEET L12					952	131							5	16.38	288
	2-3RD PARKING LOT	SHEET L13															
	4-5TH PARKING LOT	SHEET L14															
	5TH PARKING LOT	SHEET L15															
SUBTOTALS			**1**			**45**	**2248**	**263**	**2**	**1**	**14**	**1**	**6**	**2**	**17**	**212.28**	**338**
TOTALS			**5**	**14**	**1086**	**355.5**	**23458**	**2759**	**33**	**13**	**88**	**18**	**75**	**6**	**258**	**1773.98**	**363**

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www.hkgi.com

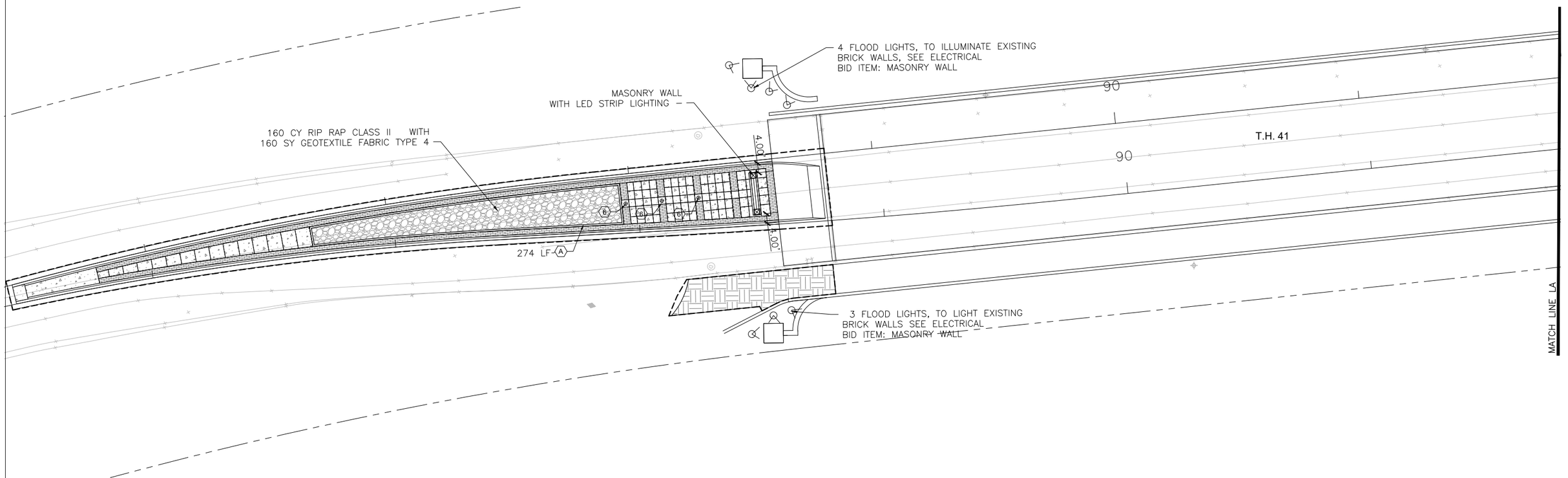
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LIC. NO. 23594 DATE 03/08/2022

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DRAWN	AB, TS
CHECKED	PP

S.P.1008-87(TH 41), S.P.196-010-017, S.P.196-010-018, S.P.196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STREETSCAPE PLAN

SHEET L2 OF L29



STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE	SYMBOL	#	FEATURE	SYMBOL	#	FEATURE
		CONCRETE - (BID ITEM VARIES-SEE CONSTRUCTION PLANS)		1	MASONRY PILLAR		9	ORNAMENTAL RAILING TYPE SPECIAL
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)		2	MASONRY PILLAR TYPE 1		10	BOLLARD
		BRICK WALK (REFER TO DETAIL FOR PATTERN)		3	MASONRY SEAT WALL		11	BICYCLE RACK
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)		4	NOT USED		12	BENCH
	A	CONCRETE CURB DESIGN SPECIAL		5	ORNAMENTAL METAL RAILING		13	WASTE RECEPTACLE
				6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE			DECIDUOUS TREE - BY OTHERS
				7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)			PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
				8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)			WORK LIMITS

0 10' 20' 40'

NORTH

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LIC. NO. 23594 DATE 03/08/2022

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DRAWN	AB, TS
CHECKED	PP

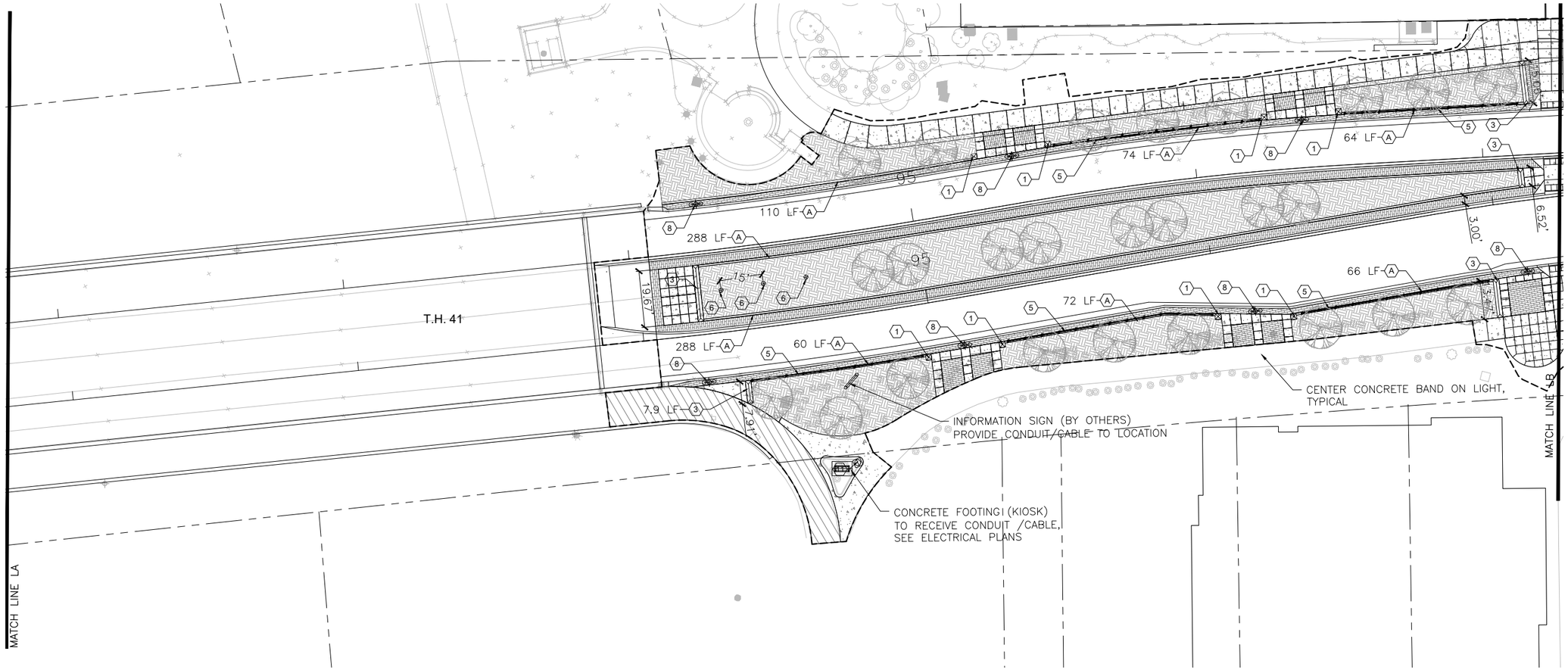
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STREETSCAPE PLAN

SHEET L3 OF L29

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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE	SYMBOL	#	FEATURE	SYMBOL	#	FEATURE
		CONCRETE - (BID ITEM VARIES- SEE CONSTRUCTION PLANS)		1	MASONRY PILLAR		9	ORNAMENTAL RAILING TYPE SPECIAL
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)		2	MASONRY PILLAR TYPE 1		10	BOLLARD
		BRICK WALK (REFER TO DETAIL FOR PATTERN)		3	MASONRY SEAT WALL		11	BICYCLE RACK
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)		4	NOT USED		12	BENCH
	A	CONCRETE CURB DESIGN SPECIAL		5	ORNAMENTAL METAL RAILING		13	WASTE RECEPTACLE
				6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE			DECIDUOUS TREE - BY OTHERS
				7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)			PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
				8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)			WORK LIMITS

0 10' 20' 40'

NORTH

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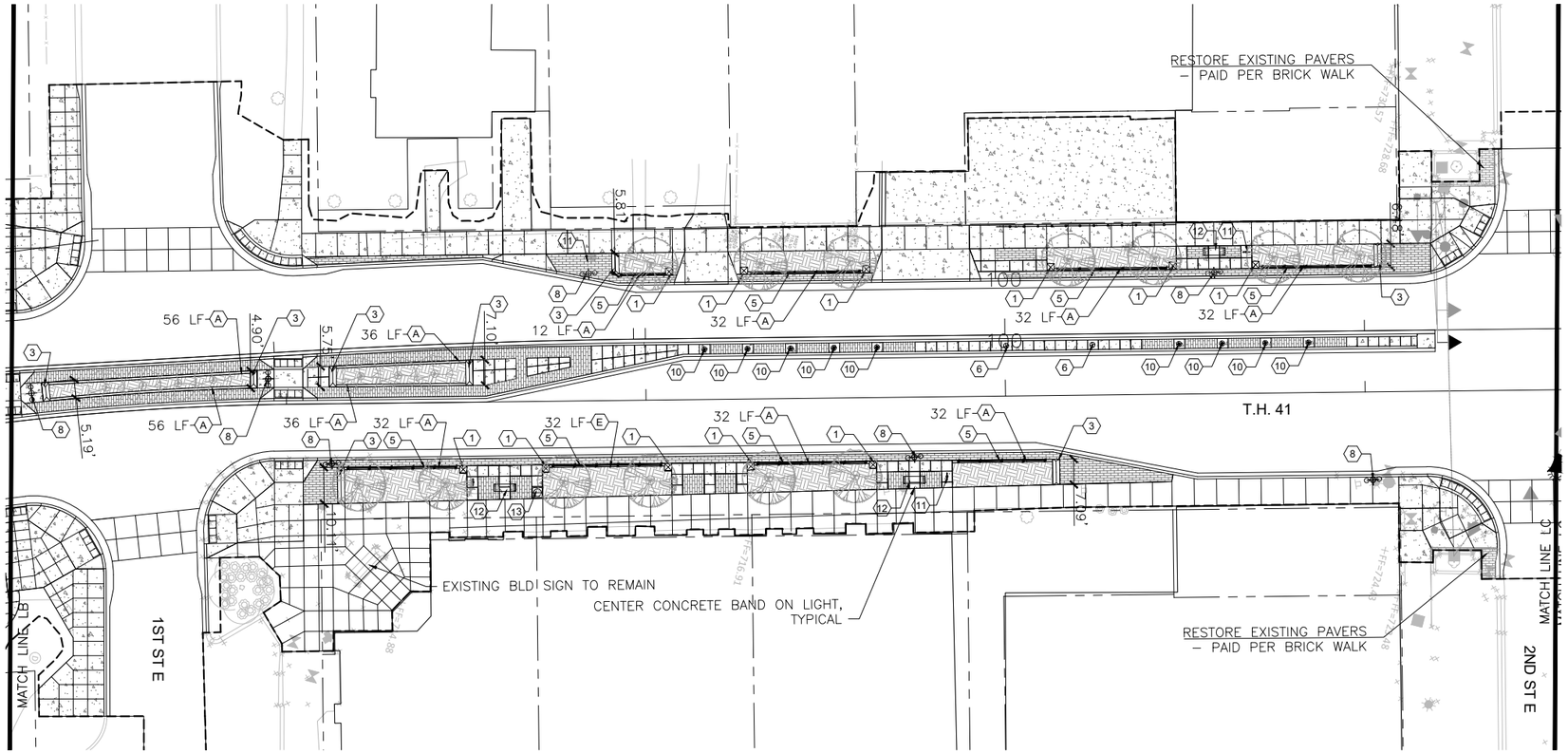
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DRAWN	AB, TS
CHECKED	PP

S.P.1008-87(TH 41), S.P.196-010-017, S.P.196-010-018, S.P.196-020-014
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STREETSCAPE PLAN

SHEET L4 OF L29

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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE - (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)
		BRICK WALK (REFER TO DETAIL FOR PATTERN)
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)
	A	CONCRETE CURB DESIGN SPECIAL

SYMBOL	#	FEATURE
	1	MASONRY PILLAR
	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE
	7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)

SYMBOL	#	FEATURE
	9	ORNAMENTAL RAILING TYPE SPECIAL
	10	BOLLARD
	11	BICYCLE RACK
	12	BENCH
	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
		WORK LIMITS

0 10' 20' 40'

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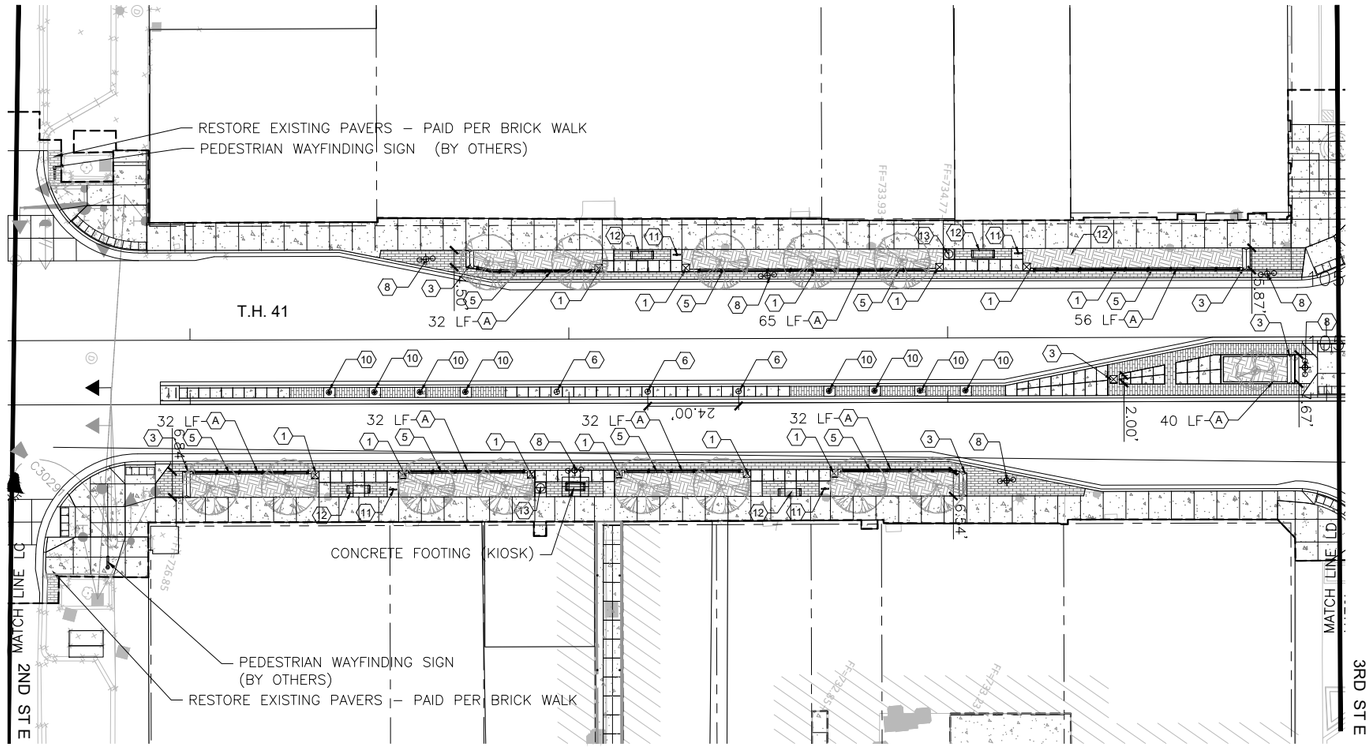
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STREETSCAPE PLAN

SHEET L5 OF L29

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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE - (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)
		BRICK WALK (REFER TO DETAIL FOR PATTERN)
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)
	A	CONCRETE CURB DESIGN SPECIAL

SYMBOL	#	FEATURE
	1	MASONRY PILLAR
	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE
	7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)

SYMBOL	#	FEATURE
	9	ORNAMENTAL RAILING TYPE SPECIAL
	10	BOLLARD
	11	BICYCLE RACK
	12	BENCH
	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
		WORK LIMITS

0 10' 20' 40'

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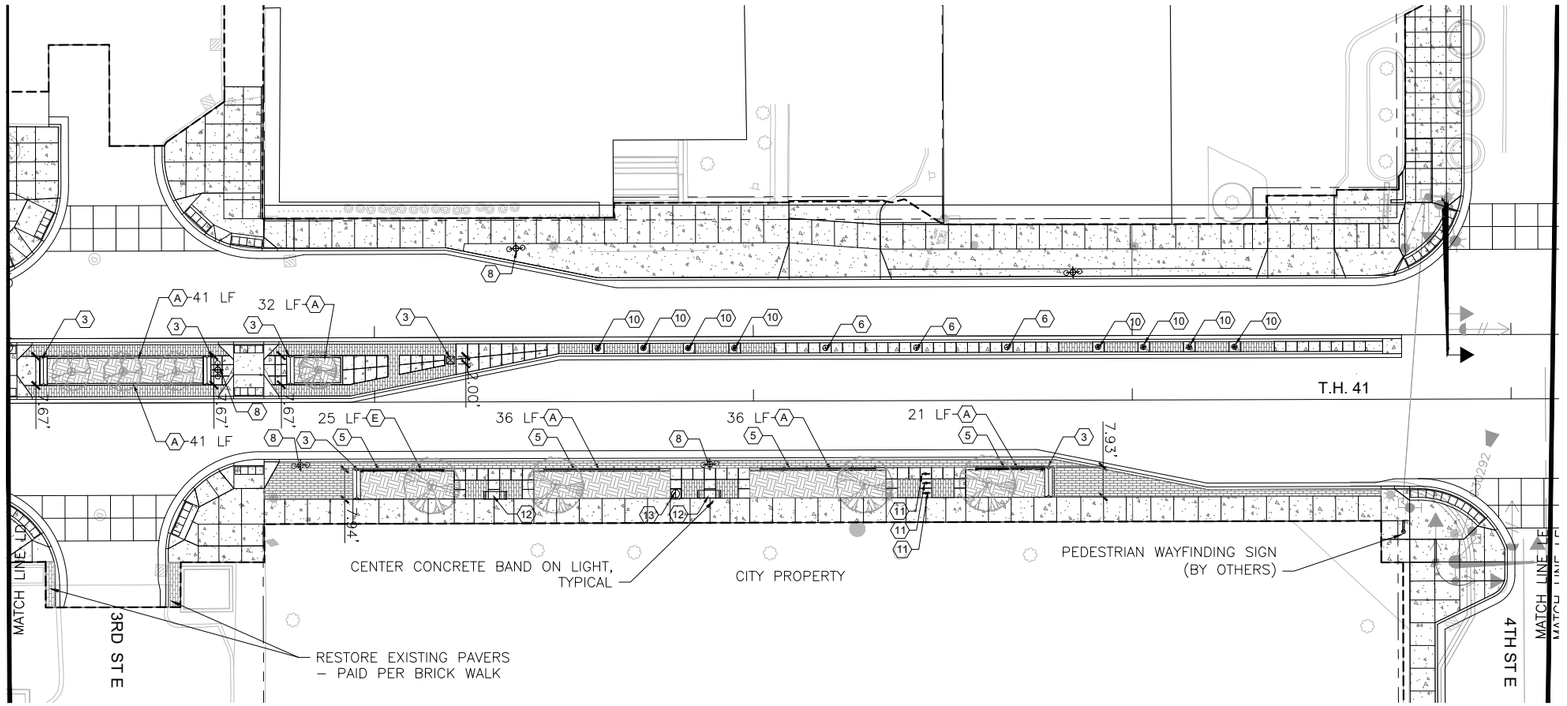
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SHEET L6
OF L29

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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE	SYMBOL	#	FEATURE	SYMBOL	#	FEATURE
		CONCRETE - (BID ITEM VARIES- SEE CONSTRUCTION PLANS)		1	MASONRY PILLAR		9	ORNAMENTAL RAILING TYPE SPECIAL
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)		2	MASONRY PILLAR TYPE 1		10	BOLLARD
		BRICK WALK (REFER TO DETAIL FOR PATTERN)		3	MASONRY SEAT WALL		11	BICYCLE RACK
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)		4	NOT USED		12	BENCH
	A	CONCRETE CURB DESIGN SPECIAL		5	ORNAMENTAL METAL RAILING		13	WASTE RECEPTACLE
				6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE			DECIDUOUS TREE - BY OTHERS
				7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)			PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
				8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)			WORK LIMITS

0 10' 20' 40'

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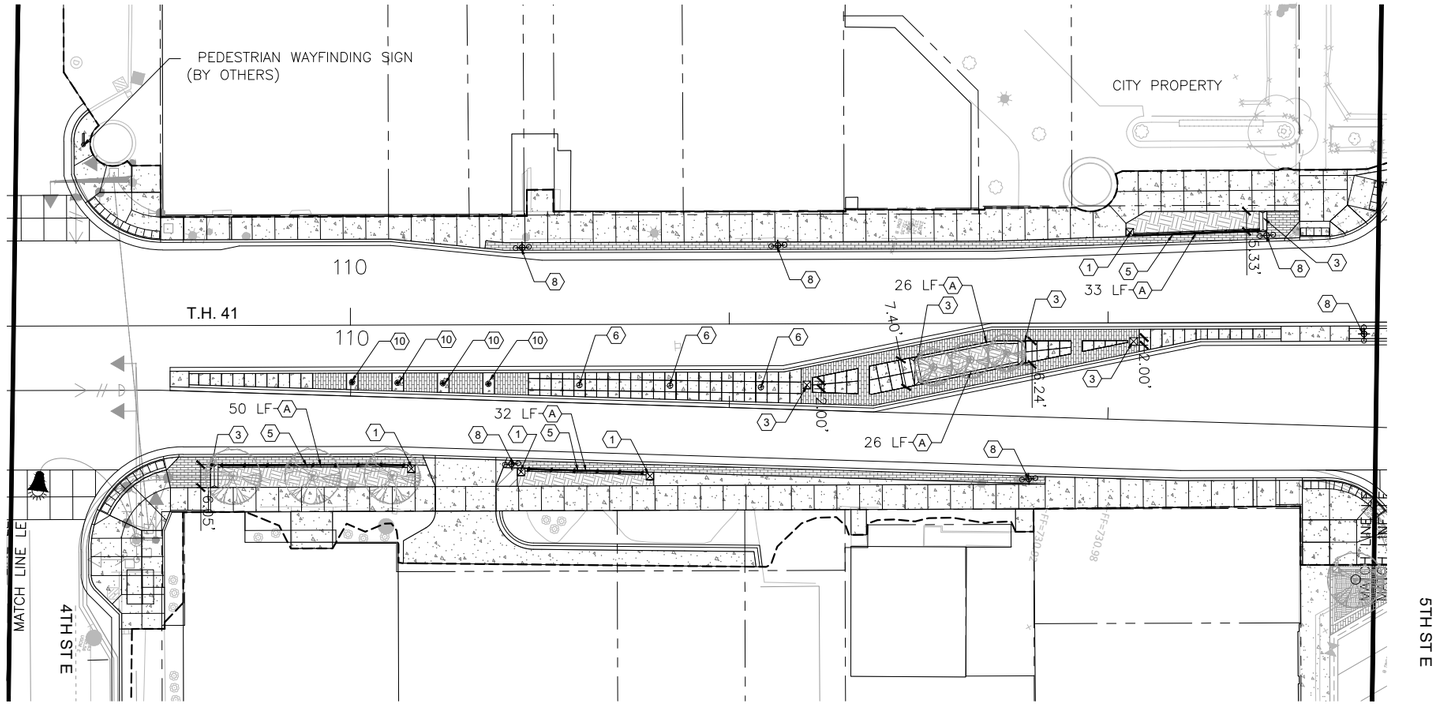
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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE - (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)
		BRICK WALK (REFER TO DETAIL FOR PATTERN)
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)
	A	CONCRETE CURB DESIGN SPECIAL

SYMBOL	#	FEATURE
	1	MASONRY PILLAR
	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE
	7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)

SYMBOL	#	FEATURE
	9	ORNAMENTAL RAILING TYPE SPECIAL
	10	BOLLARD
	11	BICYCLE RACK
	12	BENCH
	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
		WORK LIMITS

0 10' 20' 40'

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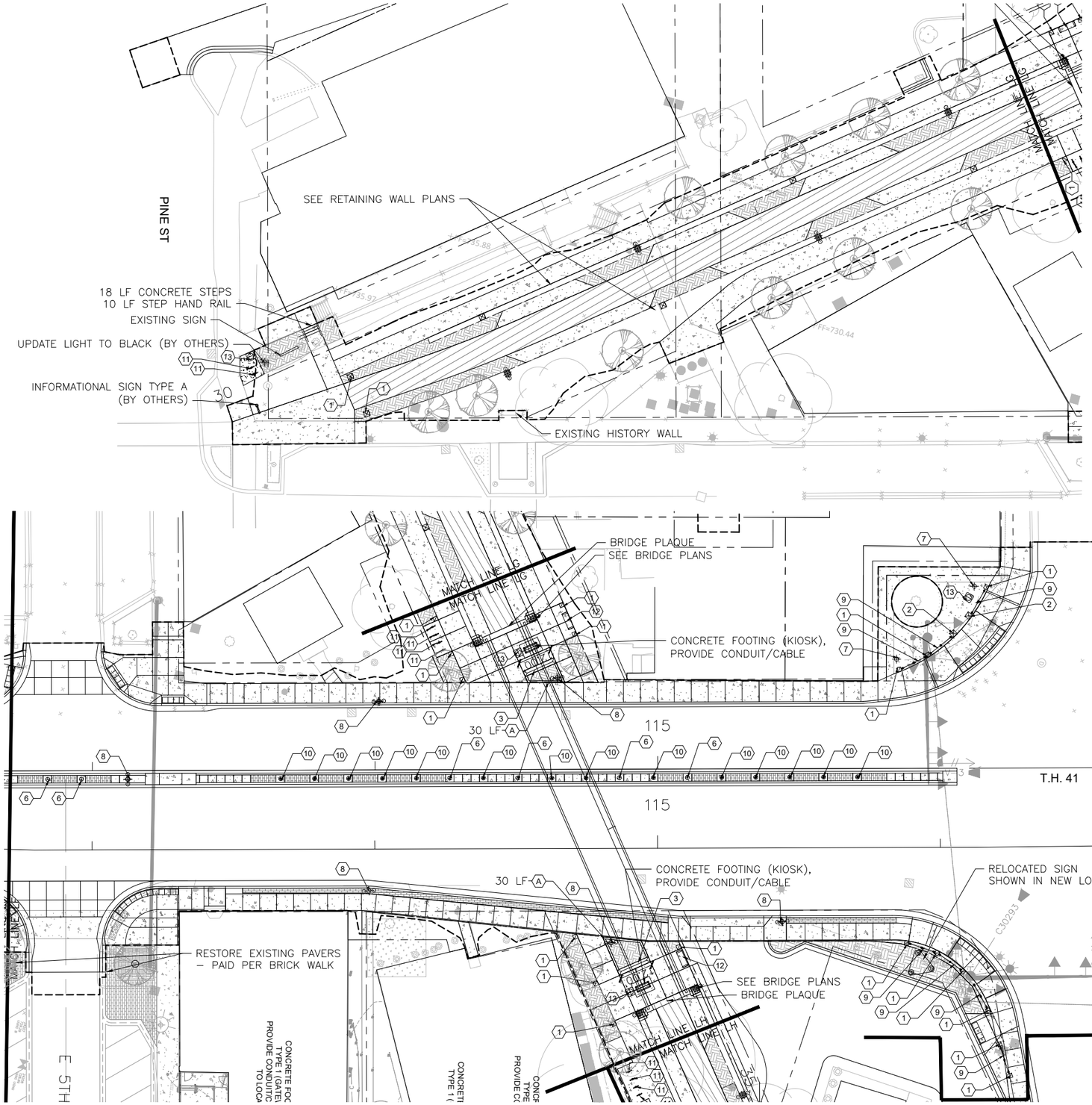
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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE PAVEMENT (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE WALK- SAW CUT AS SHOW - SCORING INCIDENTAL
		BRICK WALK
	A	ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)

SYMBOL	#	FEATURE
	1	MASONRY PILLAR
	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT - SEE ELECTRICAL PLANS (BANNER POLE)
	7	LIGHTING UNIT - SEE ELECTRICAL PLANS (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL PLANS (DOUBLE FIXTURE)
	9	ORNAMENTAL METAL RAILING TYPE SPECIAL
	10	BOLLARD
	11	BICYCLE RACK
	12	BENCH
	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		ROW/EASEMENT/PROPERTY (SEE LAYOUT)
		WORK LIMITS

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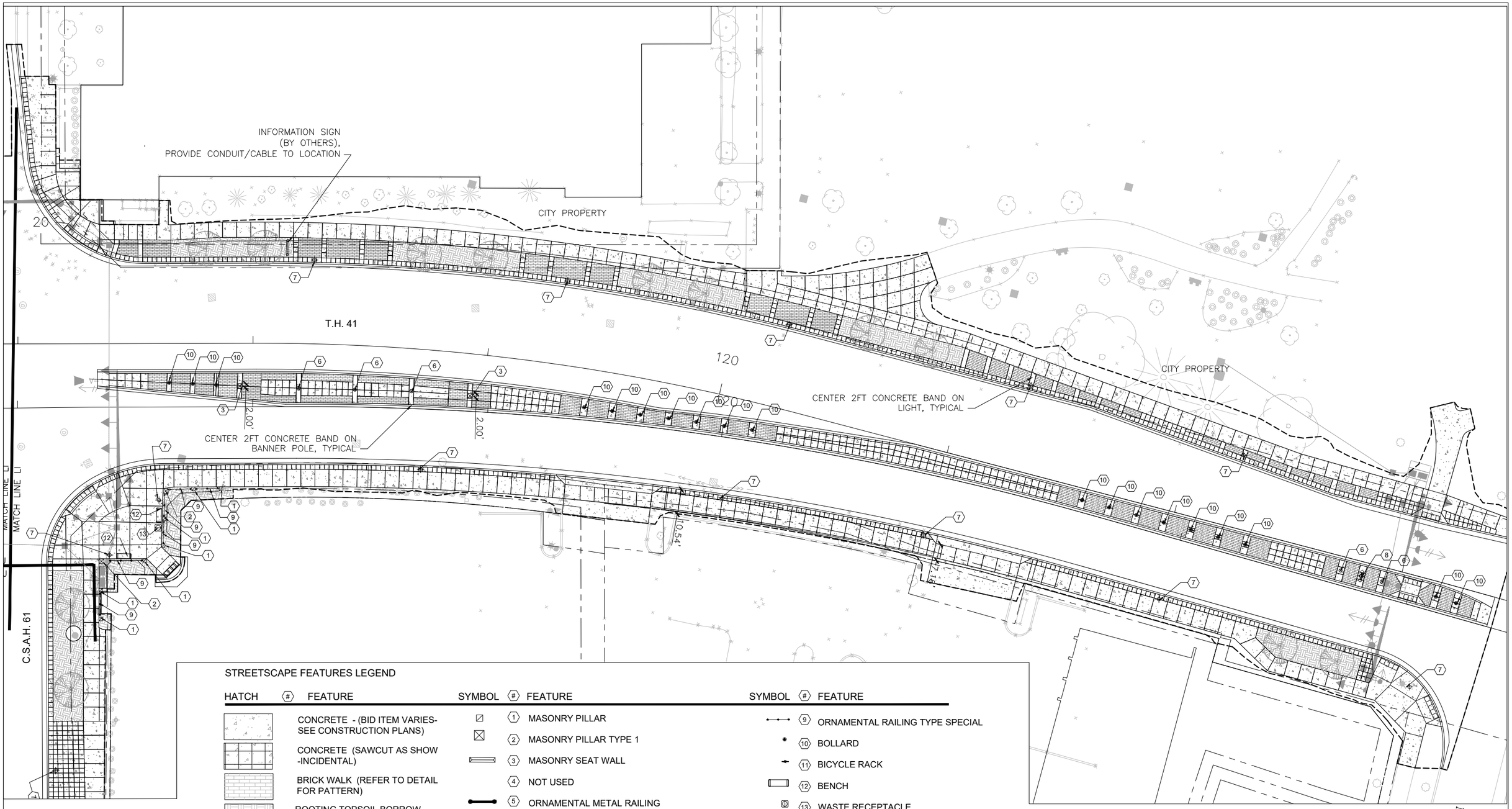
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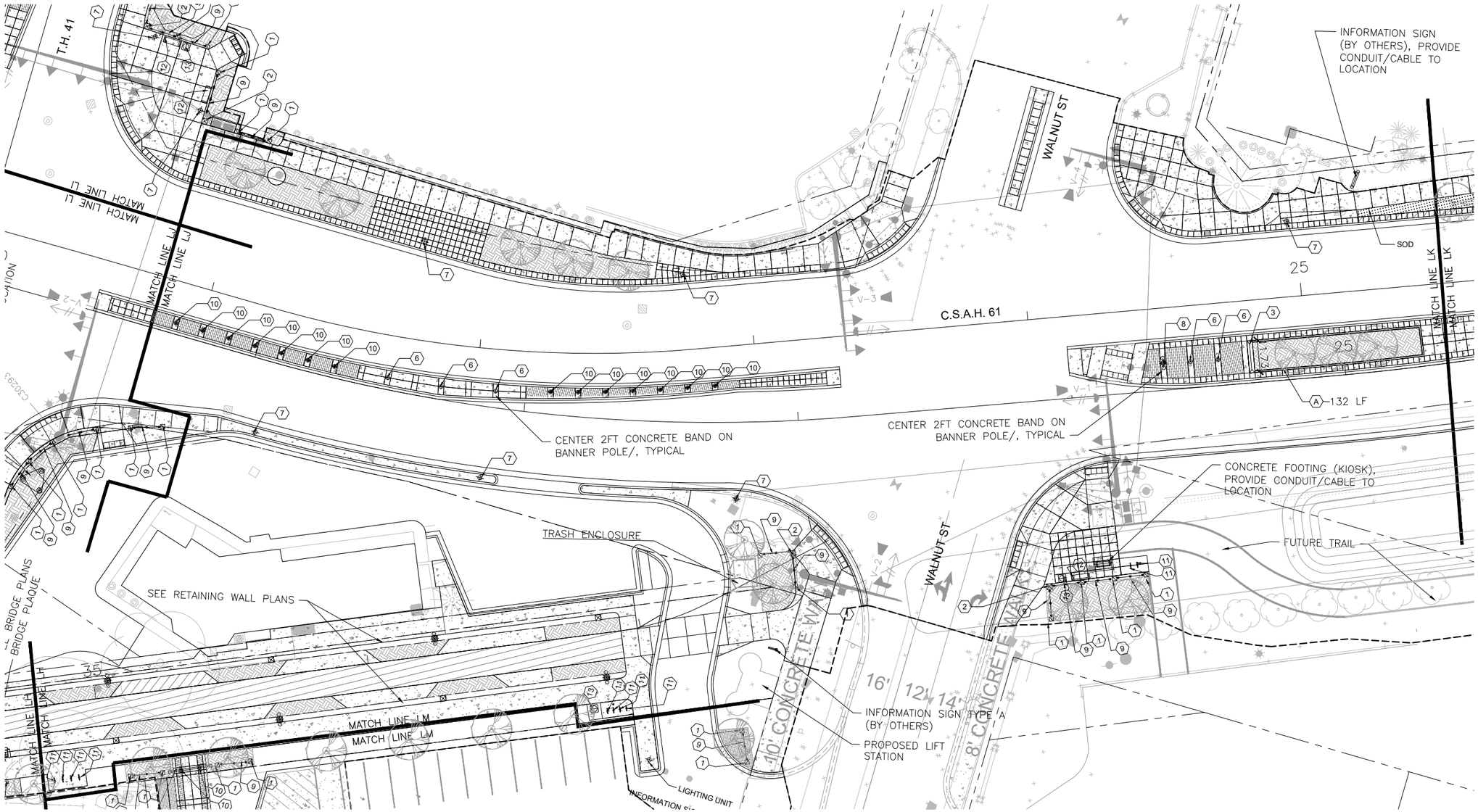
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DRAWN AB, TS
CHECKED PP

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SHEET L10 OF L29

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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE - (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)
		BRICK WALK (REFER TO DETAIL FOR PATTERN)
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)
	A	CONCRETE CURB DESIGN SPECIAL

SYMBOL	#	FEATURE
	1	MASONRY PILLAR
	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE
	7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)

SYMBOL	#	FEATURE
	9	ORNAMENTAL RAILING TYPE SPECIAL
	10	BOLLARD
	11	BICYCLE RACK
	12	BENCH
	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
		WORK LIMITS

0 10' 20' 40' NORTH

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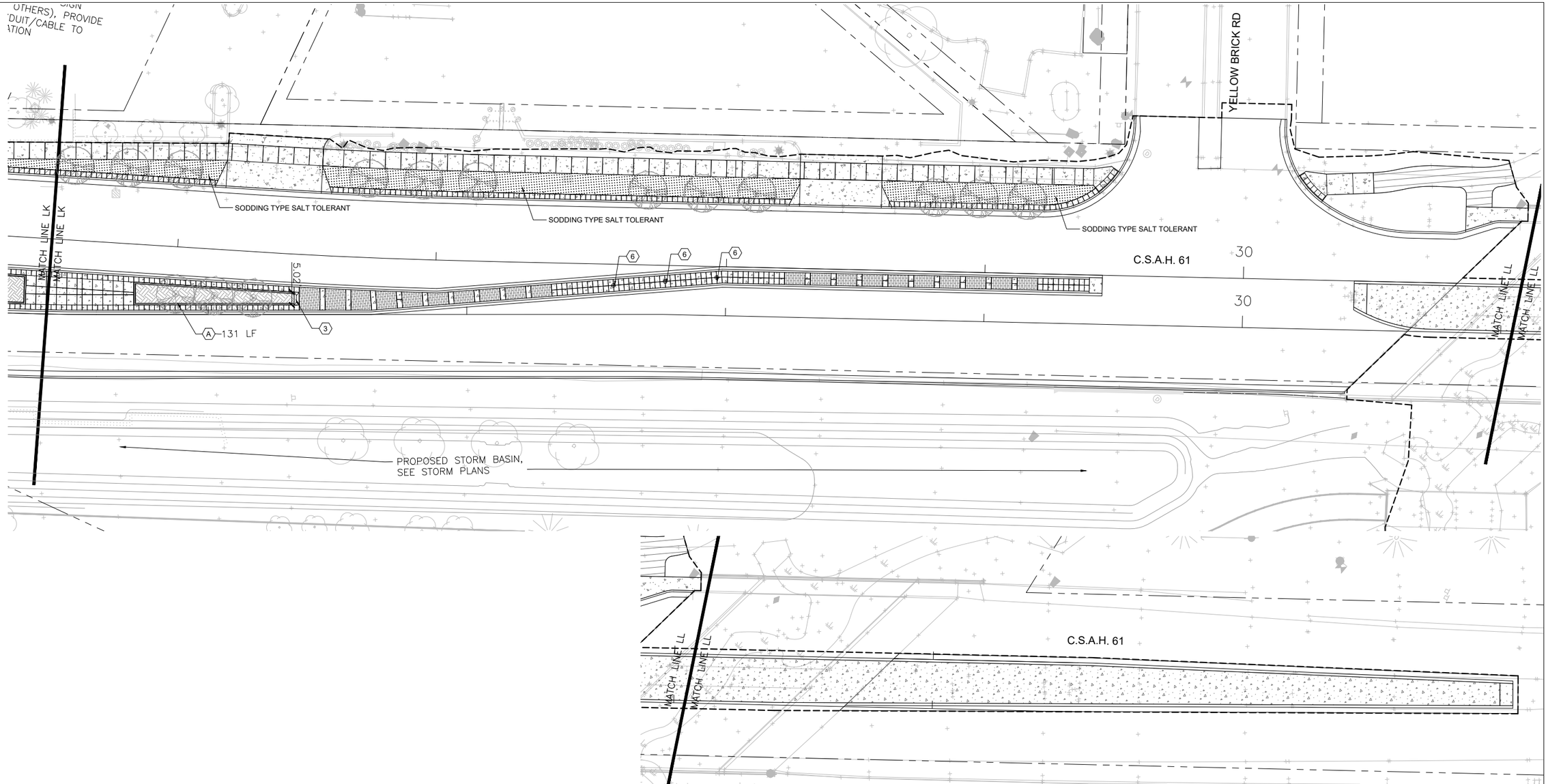
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STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE - (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE (SAWCUT AS SHOW -INCIDENTAL)
		BRICK WALK (REFER TO DETAIL FOR PATTERN)
		ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)
	A	CONCRETE CURB DESIGN SPECIAL

SYMBOL	#	FEATURE
	1	MASONRY PILLAR
	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT, SEE ELECTRICAL - BANNER POLE
	7	LIGHTING UNIT , SEE ELECTRICAL (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL) (DOUBLE FIXTURE)

SYMBOL	#	FEATURE
	9	ORNAMENTAL RAILING TYPE SPECIAL
	10	BOLLARD
	11	BICYCLE RACK
	12	BENCH
	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		PROPERTY/EASEMENT/ROW (SEE LAYOUT PLANS)
		WORK LIMITS

0 10' 20' 40'

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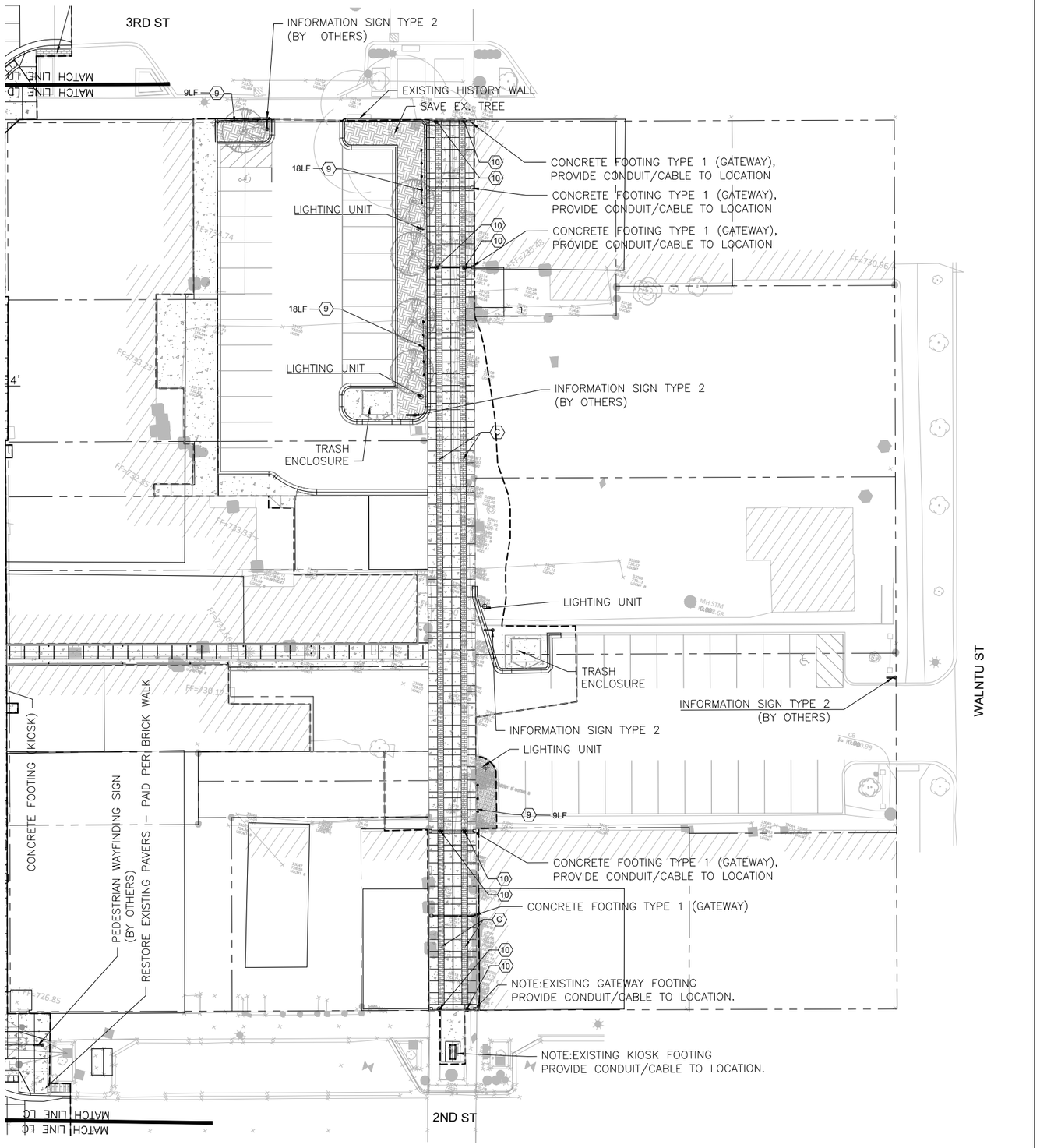
STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE PAVEMENT (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE WALK- SAW CUT AS SHOW - SCORING INCIDENTAL
		BRICK WALK
	A	ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)

SYMBOL	#	FEATURE
⊠	1	MASONRY PILLAR
⊠	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT - SEE ELECTRICAL PLANS (BANNER POLE)
	7	LIGHTING UNIT - SEE ELECTRICAL PLANS (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL PLANS (DOUBLE FIXTURE)
	9	ORNAMENTAL METAL RAILING TYPE SPECIAL
	10	BOLLARD
	11	BICYCLE RACK
	12	BENCH
	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		ROW/EASEMENT/PROPERTY (SEE LAYOUT)
		WORK LIMITS

0 10' 20' 40'

NORTH



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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STREETSCAPE PLAN

SHEET L13 OF L29

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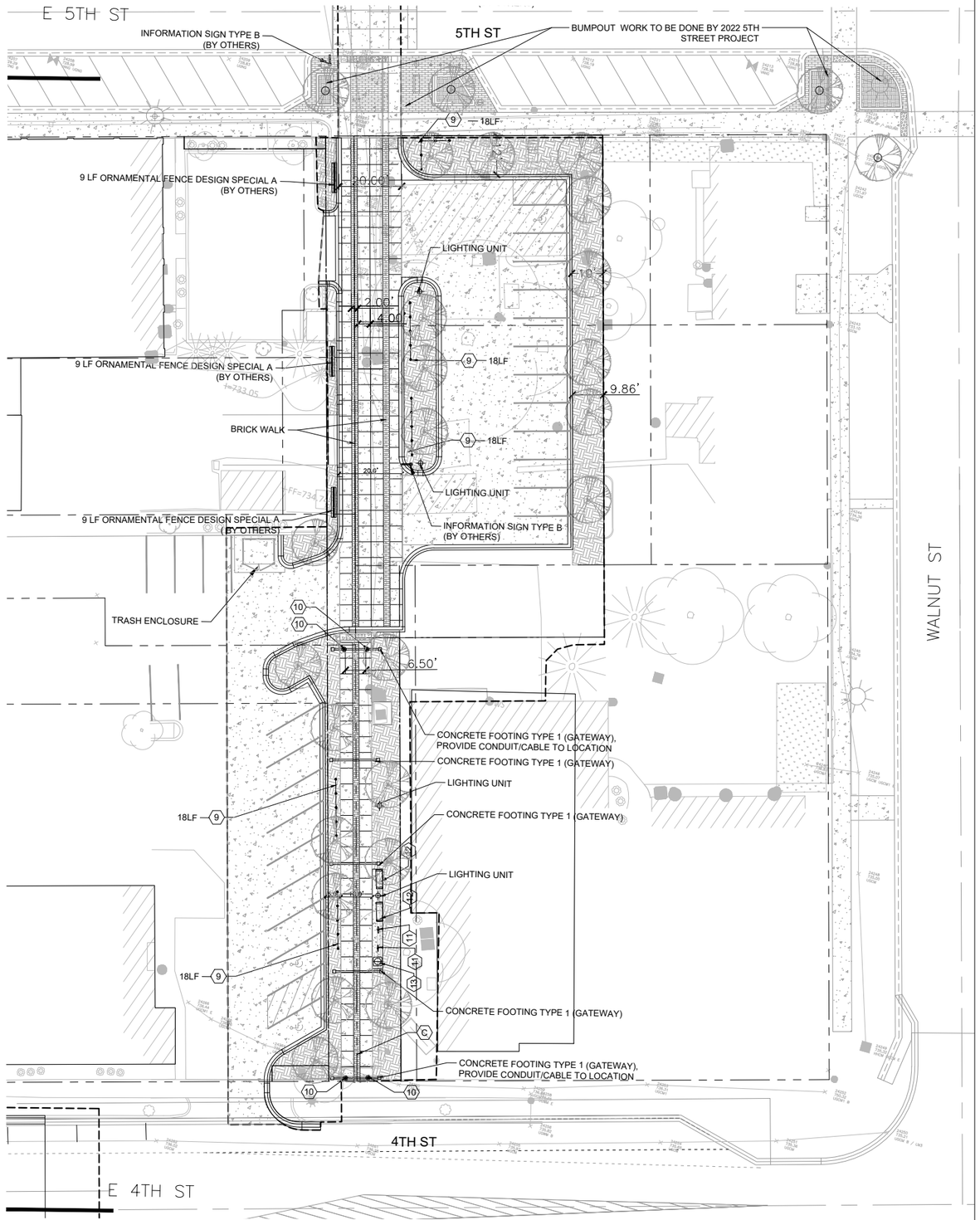
STREETSCAPE FEATURES LEGEND

HATCH	#	FEATURE
		CONCRETE PAVEMENT (BID ITEM VARIES- SEE CONSTRUCTION PLANS)
		CONCRETE WALK- SAW CUT AS SHOW - SCORING INCIDENTAL
		BRICK WALK
	A	ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)

SYMBOL	#	FEATURE
⊠	1	MASONRY PILLAR
⊠	2	MASONRY PILLAR TYPE 1
	3	MASONRY SEAT WALL
	4	NOT USED
	5	ORNAMENTAL METAL RAILING
	6	LIGHTING UNIT - SEE ELECTRICAL PLANS (BANNER POLE)
	7	LIGHTING UNIT - SEE ELECTRICAL PLANS (SINGLE FIXTURE)
	8	LIGHTING UNIT - SEE ELECTRICAL PLANS (DOUBLE FIXTURE)
	9	ORNAMENTAL METAL RAILING TYPE SPECIAL
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	13	WASTE RECEPTACLE
		DECIDUOUS TREE - BY OTHERS
		ROW/EASEMENT/PROPERTY (SEE LAYOUT)
		WORK LIMITS

0 10' 20' 40'

NORTH



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STREETSCAPE PLAN

SHEET L14 OF L29

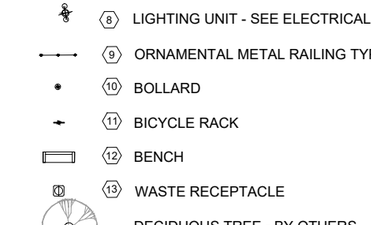
100% PLAN 2.2.22

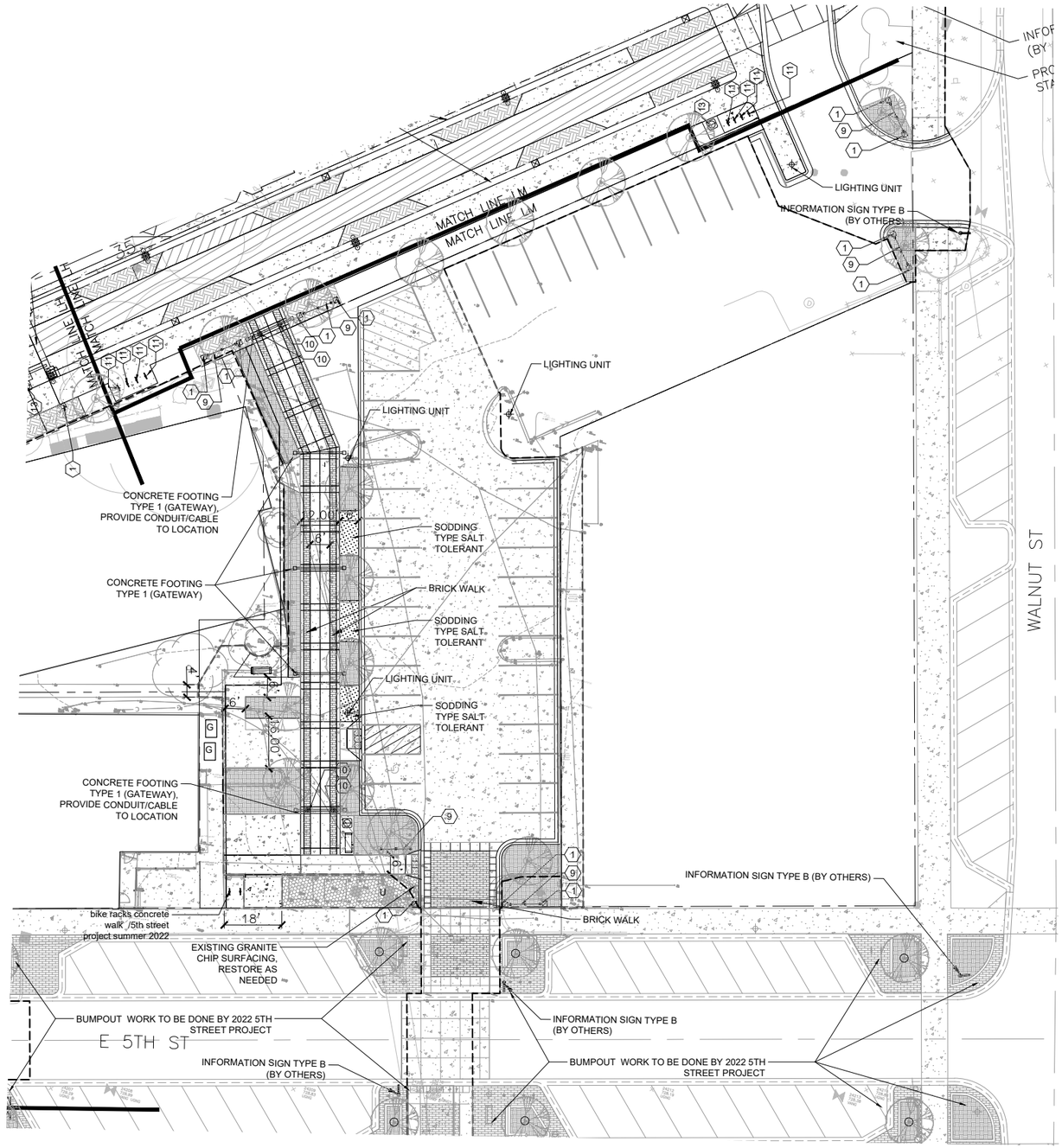
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STREETSCAPE FEATURES LEGEND

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		CONCRETE WALK- SAW CUT AS SHOW - SCORING INCIDENTAL
		BRICK WALK
	A	ROOTING TOPSOIL BORROW (FUTURE SHRUBS/PERENNIALS BY OTHERS)

SYMBOL	#	FEATURE
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		ROW/EASEMENT/PROPERTY (SEE LAYOUT)
		WORK LIMITS





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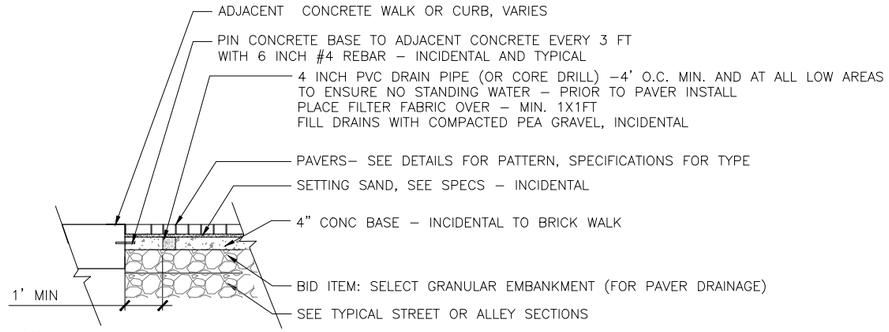
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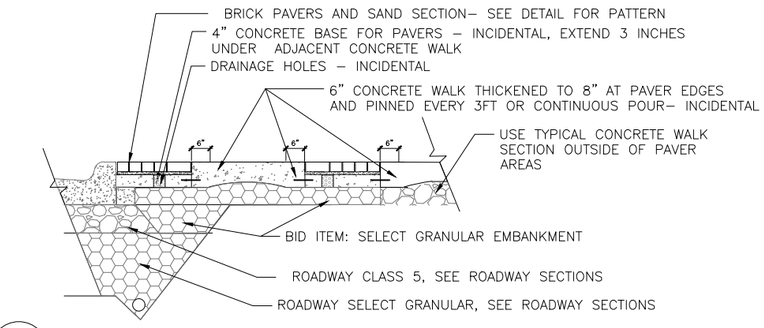
STREETSCAPE PLAN

SHEET L15 OF L29

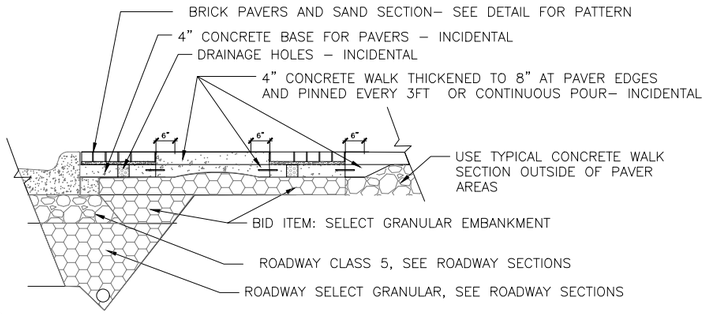
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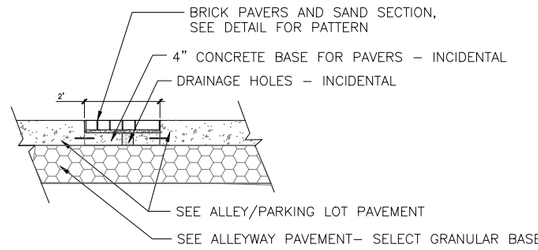
1 BRICK WALK - TYPICAL SECTION FOR ALL LOCATIONS



3 BRICK WALK - WITH 4" CONCRETE BASE AT 6 INCH CONCRETE WALK BLVDS



2 BRICK WALK - WITH 4" CONCRETE BASE AT 4 INCH CONCRETE WALK MEDIANS



4 BRICK WALK - WITH 4" CONCRETE BASE AT CONCRETE ALLEY/PARKING LOTS

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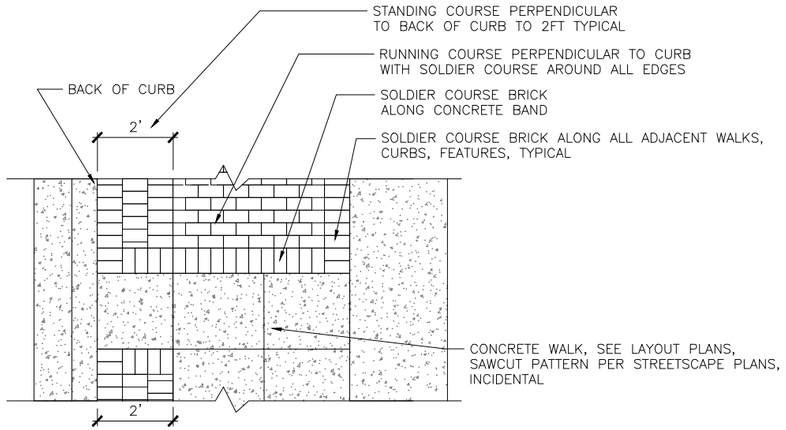
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CHECKED	PP

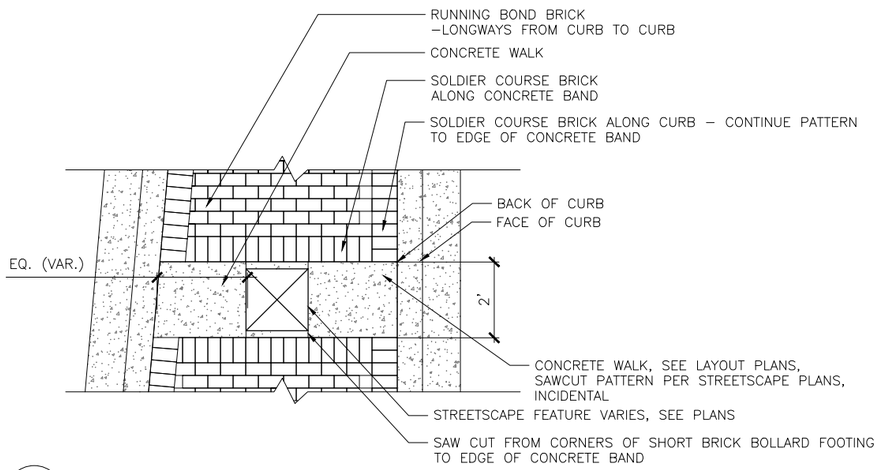
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STREETSCAPE DETAILS

SHEET L16 OF L29

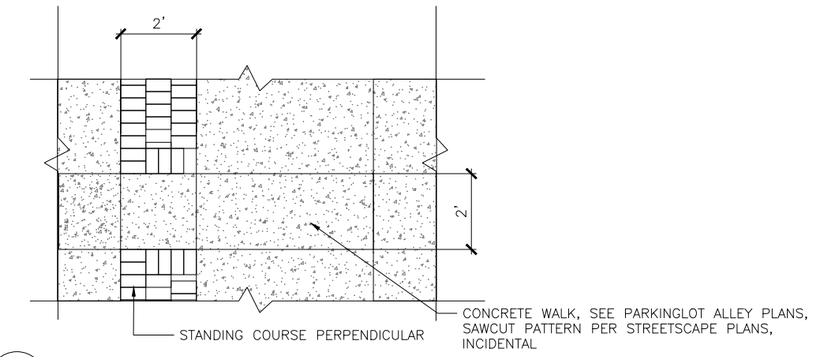
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1 BRICK WALK - BACK OF CURB IN BLVDS - PATTERN



2 BRICK WALK - IN MEDIANS - PATTERN



3 BRICK WALK - IN 2FT ALLEY BANDS- PATTERN

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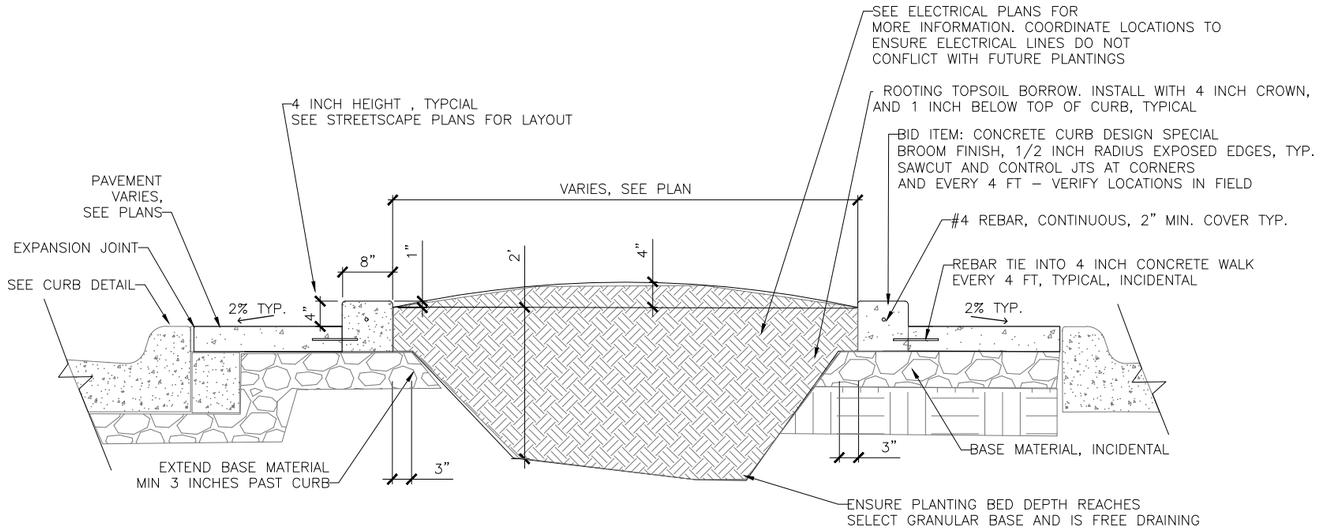
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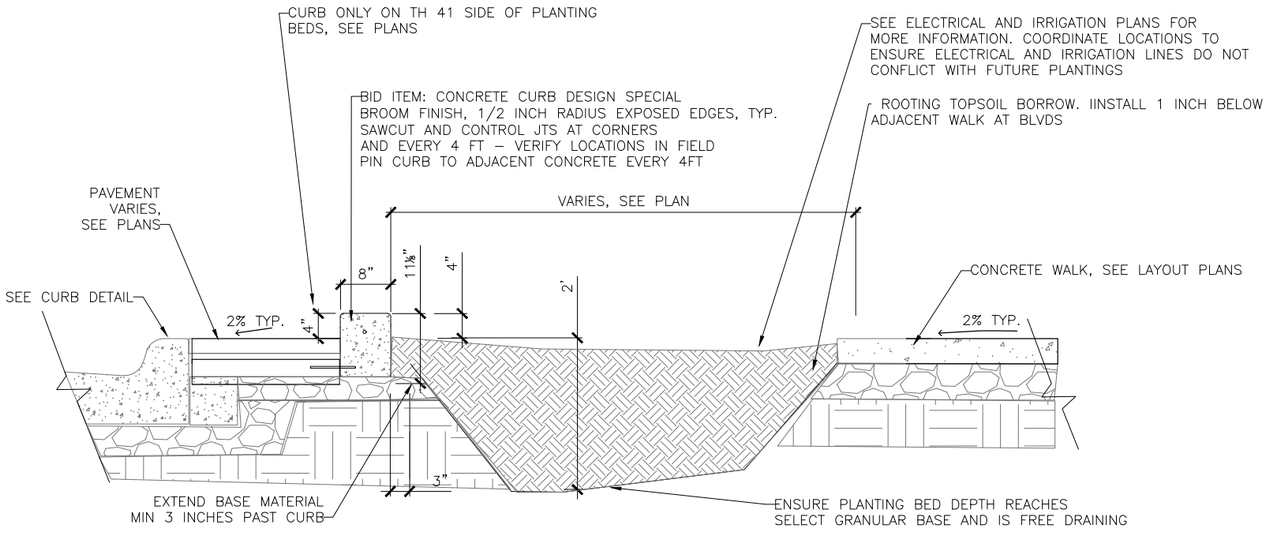
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S.P.196–010–018, S.P.196–020–014
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STREETSCAPE DETAILS

SHEET L17 OF L29

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1 CONCRETE CURB DESIGN SPECIAL AND PLANTING BED (ROOTING TOPSOIL BORROW) MEDIAN DETAIL



2 CONCRETE CURB DESIGN SPECIAL AND PLANTING BED (ROOTING TOPSOILBORROW) BLVD DETAIL

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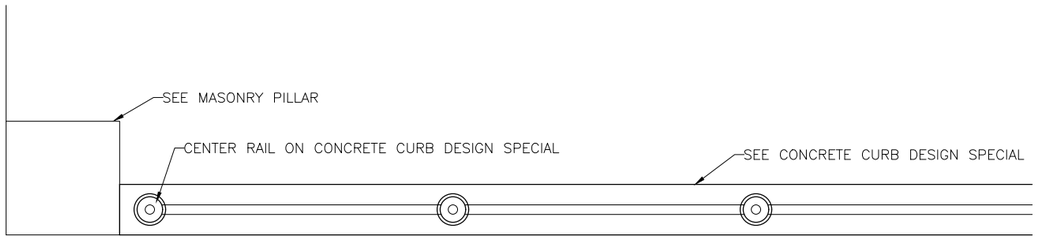
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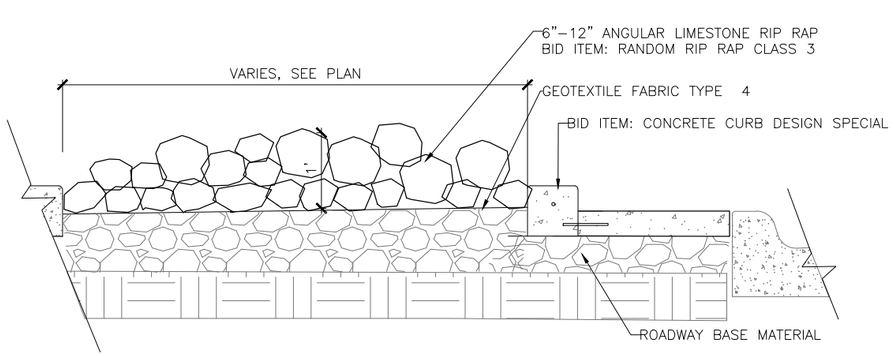
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STREETSCAPE DETAILS

SHEET L18 OF L29

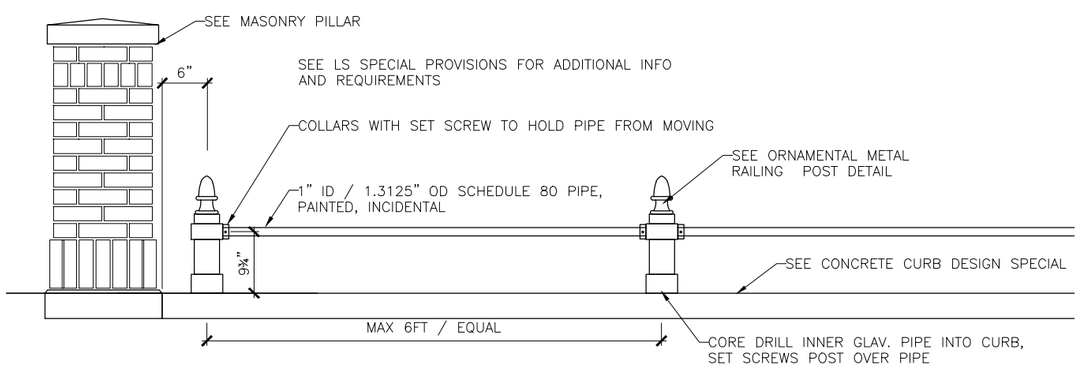
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TOP VIEW



1 CONCRETE CURB DESIGN SPECIAL AND RANDOM RIP RAP CLASS 3 / GEOTEXTILE FABRIC TYPE 4 - MEDIAN DETAIL



2 ORNAMENTAL METAL RAILING

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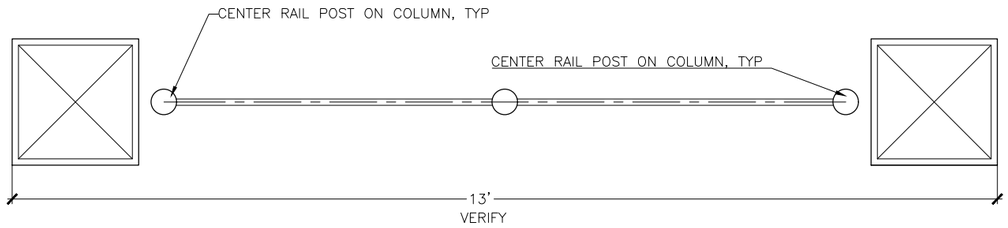
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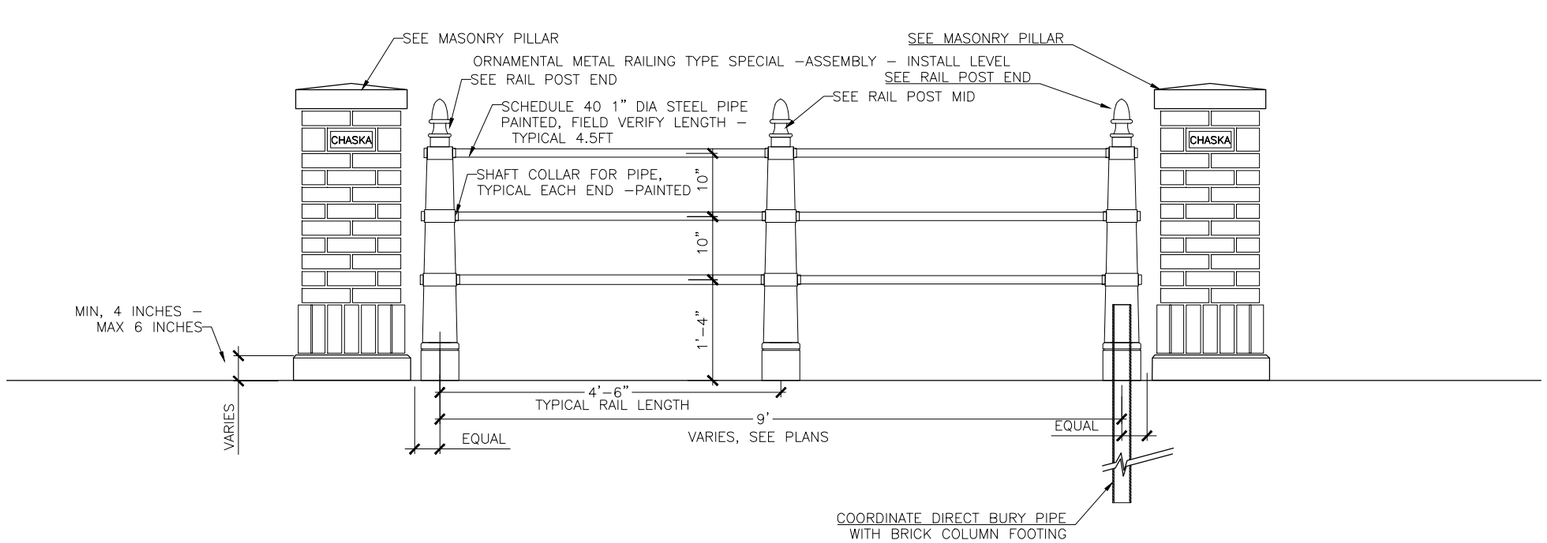
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STREETSCAPE DETAILS

SHEET L19 OF L29

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TOP VIEW



1 MASONRY PILLAR AND ORNAMENTAL METAL RAILING TYPE SPECIAL

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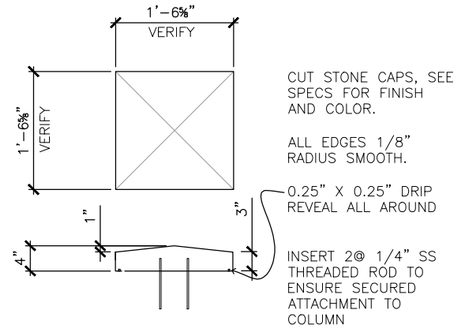
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SHEET L20 OF L29

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CUT STONE CAPS, SEE SPECS FOR FINISH AND COLOR.

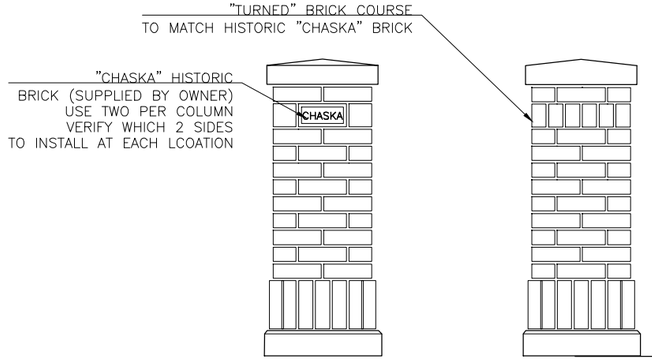
ALL EDGES 1/8" RADIUS SMOOTH.

0.25" X 0.25" DRIP REVEAL ALL AROUND

INSERT 2@ 1/4" SS THREADED ROD TO ENSURE SECURED ATTACHMENT TO COLUMN

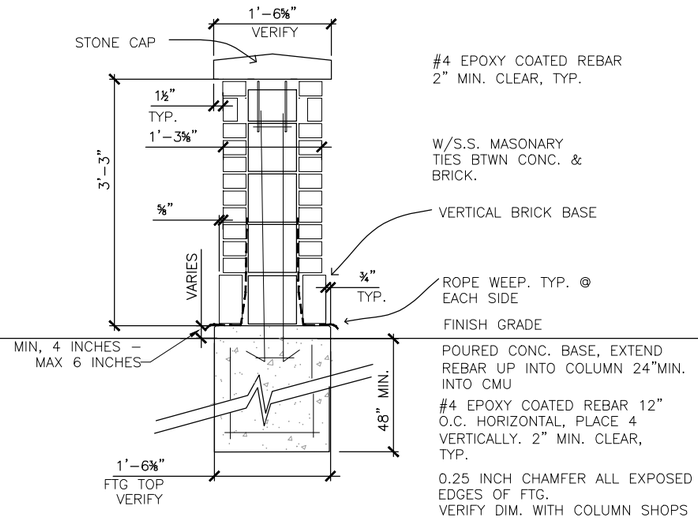
STONE CAP DETAIL

SUBMIT SHOP DRAWINGS TO VERIFY DIMENSION FOR APPROVAL PRIOR TO CONSTRUCTION.



WITH "CHASKA" BRICK FRONT AND BACK VIEW

WITHOUT "CHASKA" BRICK SIDE VIEW



#4 EPOXY COATED REBAR 2" MIN. CLEAR, TYP.

W/S.S. MASONARY TIES BTWN CONC. & BRICK.

VERTICAL BRICK BASE

ROPE WEEP. TYP. @ EACH SIDE

FINISH GRADE

POURED CONC. BASE, EXTEND REBAR UP INTO COLUMN 24"MIN. INTO CMU

#4 EPOXY COATED REBAR 12" O.C. HORIZONTAL, PLACE 4 VERTICALLY. 2" MIN. CLEAR, TYP.

0.25 INCH CHAMFER ALL EXPOSED EDGES OF FTG. VERIFY DIM. WITH COLUMN SHOPS

MASONRY PILLAR - SECTION

1 MASONRY PILLAR

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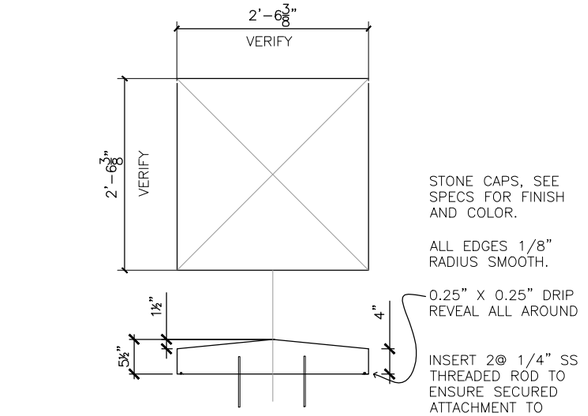
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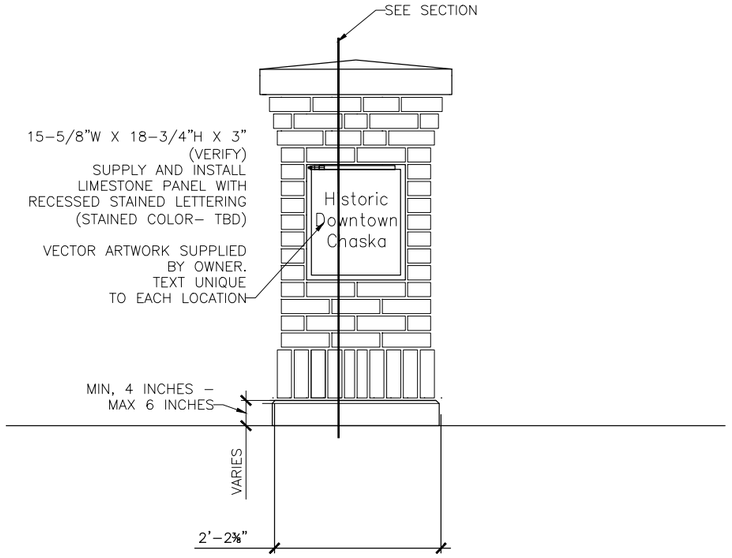
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SHEET L21 OF L29

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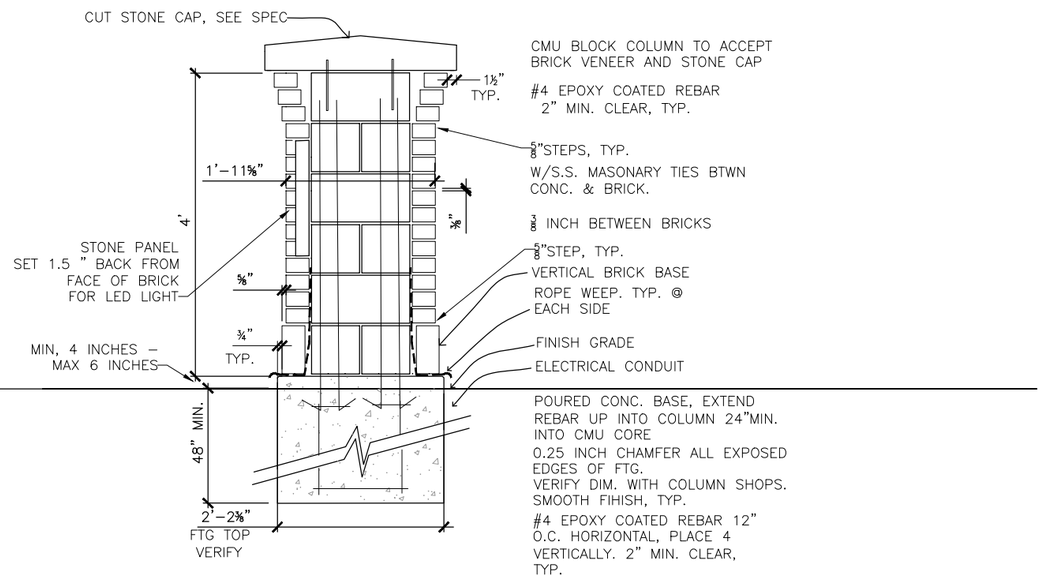


STONE CAP DETAIL



MASONRY PILLAR TYPE 1

SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.



MASONRY PILLAR TYPE 1 - SECTION

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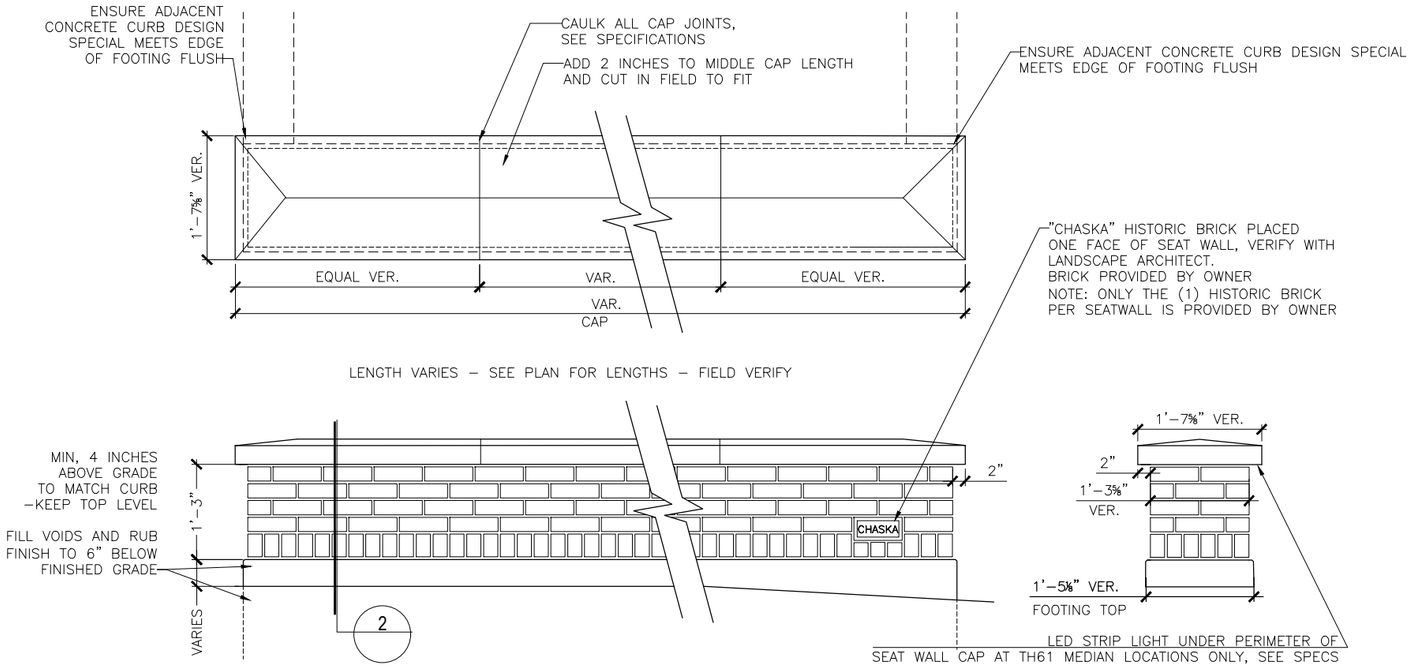
PAUL PAIGE, LA
LIC. NO. 23594 DATE 03/08/2022

DESIGNED	AB, TS
DRAWN	AB, TS
CHECKED	PP

S.P.1008-87(TH 41), S.P.196-010-017, S.P.196-010-018, S.P.196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STREETSCAPE DETAILS

SHEET L22 OF L29

M:\Chaska\020-053 Chaska Hwy61 and 41 Streetscape\5 Autocad\Construction Documents\DETAILS\CHASKA DETAILS.dwg, 3/18/2022 4:25:24 PM, Amy

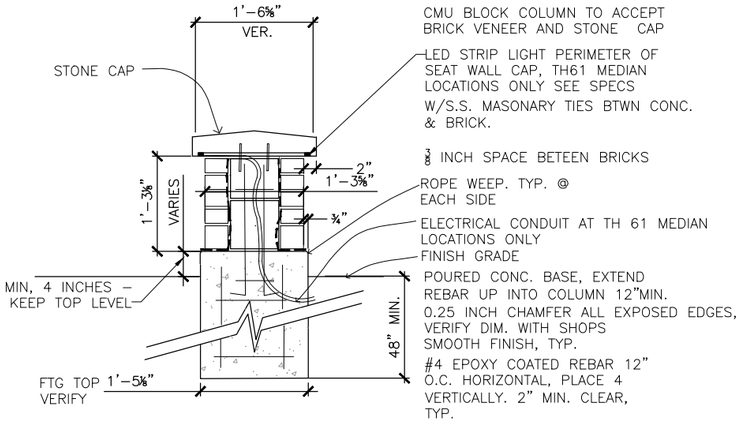


BRICK SEAT WALL END ELEVATION - TYPICAL

1 MASONRY SEAT WALL - ELEVATION

NOTE: SOME SEAT WALLS IN MEDIANS ARE SQUARE (COLUMN LIKE) BUT ARE PAID PER LF SEATWALL

SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.



2 MASONRY SEAT WALL - SECTION

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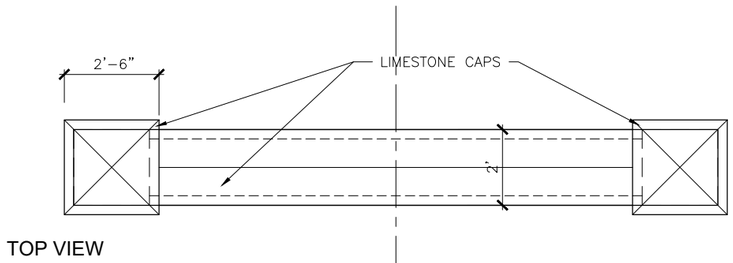
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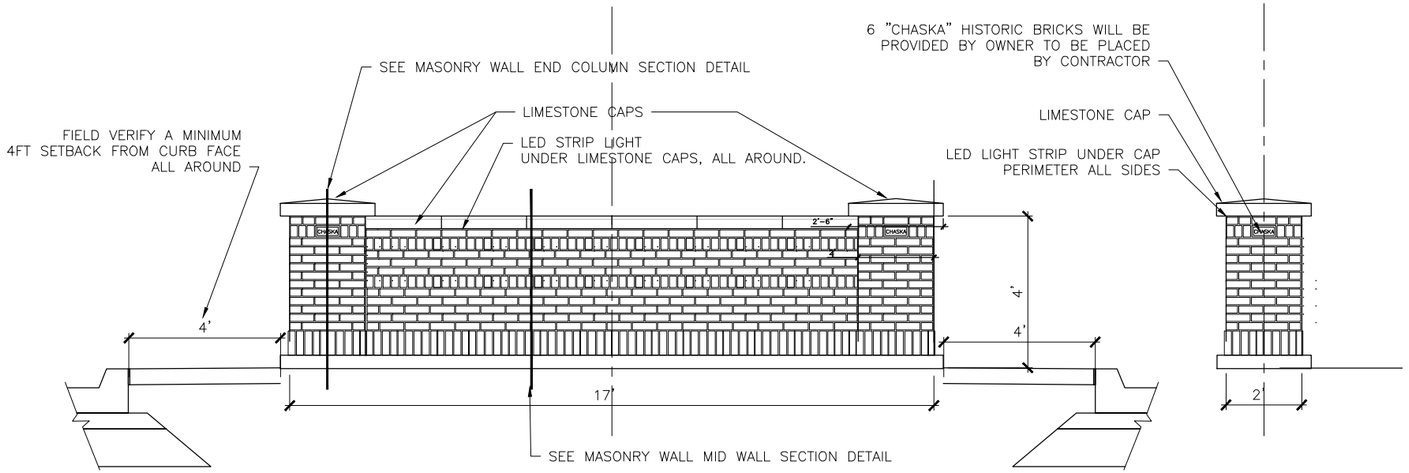
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STREETSCAPE DETAILS

SHEET L23 OF L29



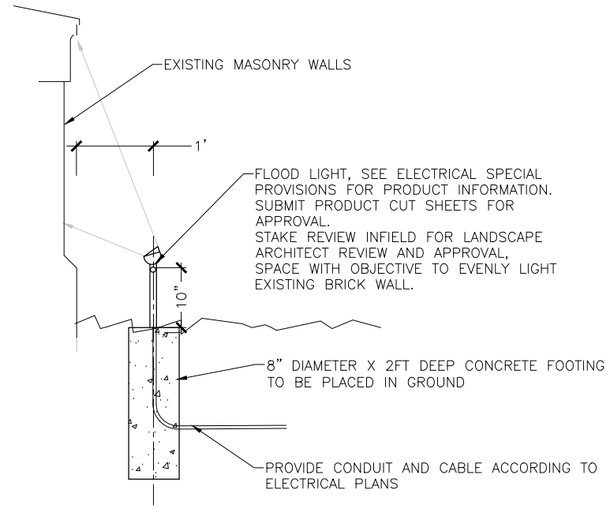
TOP VIEW



FRONT/BACK VIEW

SIDE VIEW

1 MASONRY WALL
SEE SHEET L3



2 FLOOD LIGHTS AT EXISTING BRICK WALLS
- INCIDENTAL TO BID ITEM MASONRY WALL

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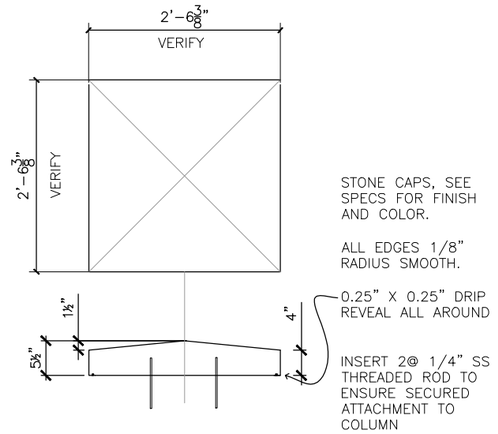
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STREETSCAPE DETAILS

SHEET L24 OF L29

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STONE CAPS, SEE SPECS FOR FINISH AND COLOR.

ALL EDGES 1/8" RADIUS SMOOTH.

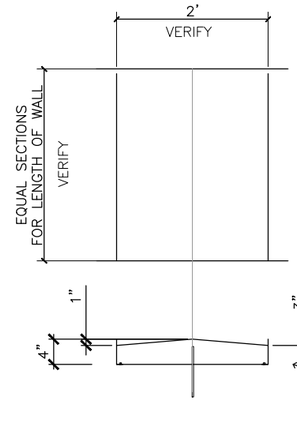
0.25" X 0.25" DRIP REVEAL ALL AROUND

INSERT 2@ 1/4" SS THREADED ROD TO ENSURE SECURED ATTACHMENT TO COLUMN

STONE CAP DETAIL END COLUMNS OF WALL

SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.

REFER TO LS SPECIAL PROVISION FOR ADDITIONAL INFORMATION AND REQUIREMENTS



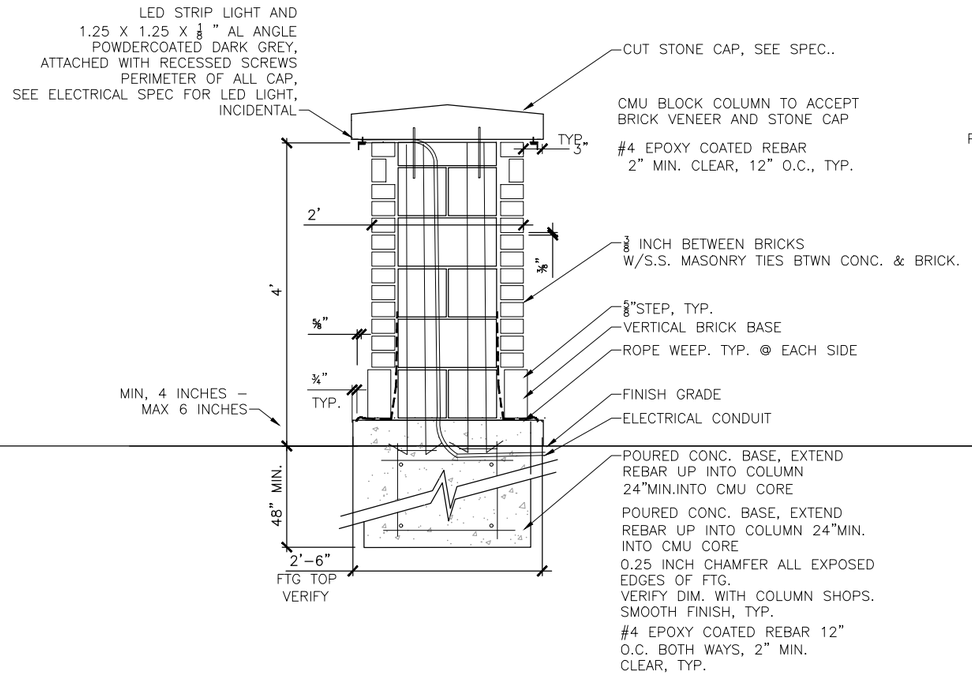
STONE CAPS, SEE SPECS FOR FINISH AND COLOR.

ALL EDGES 1/8" RADIUS SMOOTH.

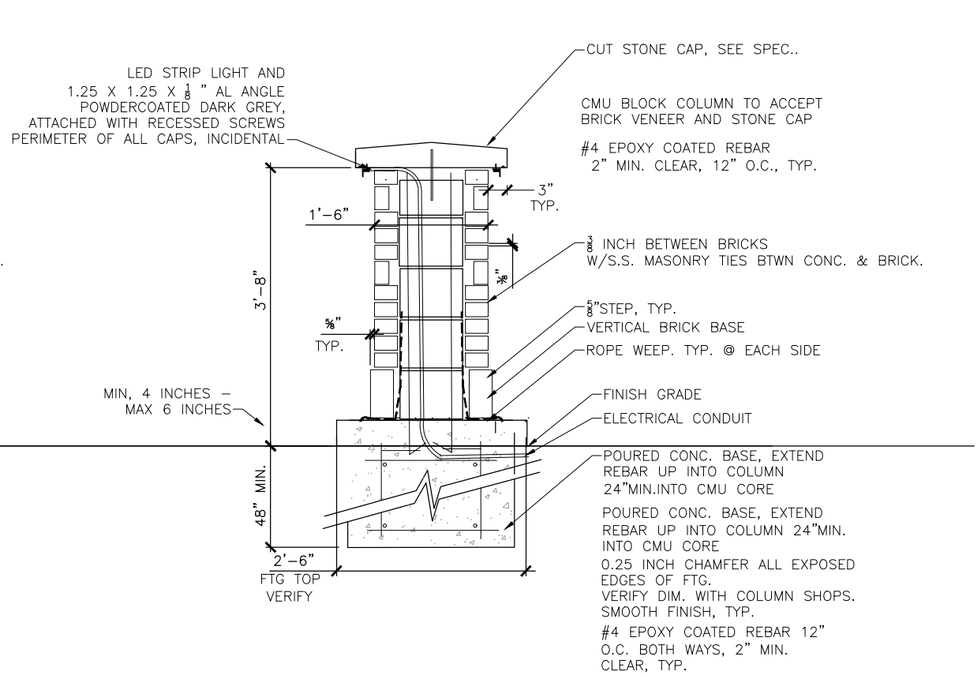
0.25" X 0.25" DRIP REVEAL ALL AROUND

INSERT 1/4" SS THREADED ROD TO ENSURE SECURED ATTACHMENT TO WALL EVERY 12"

STONE CAP DETAIL FOR MID WALL



1 MASONRY WALL - END COLUMN SECTION



2 MASONRY WALL - MID WALL SECTION

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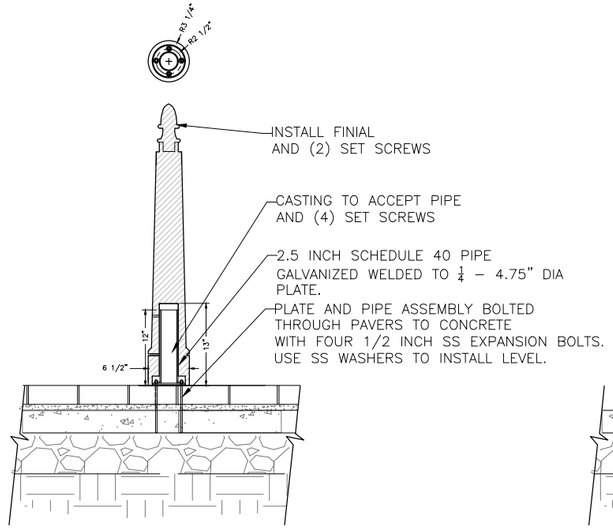
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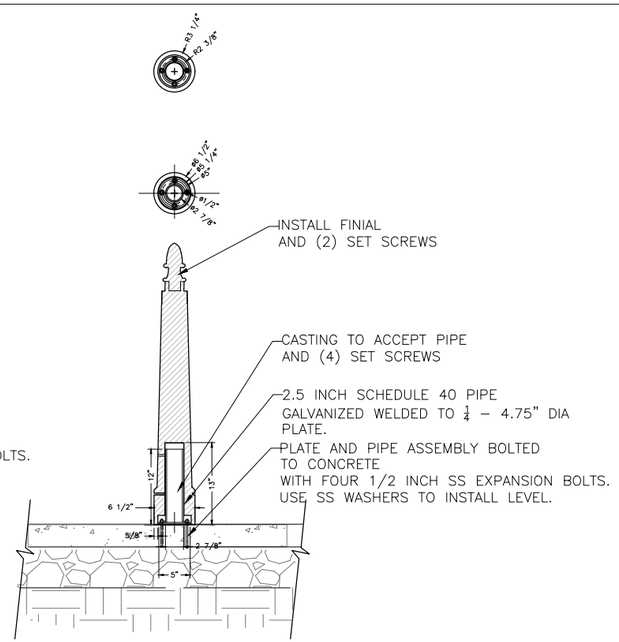
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STREETSCAPE DETAILS

SHEET L25 OF L29

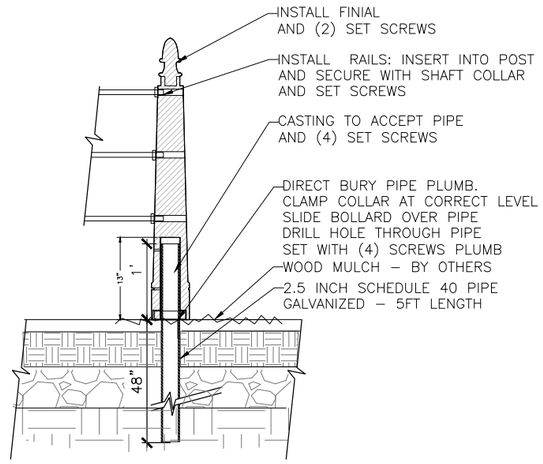
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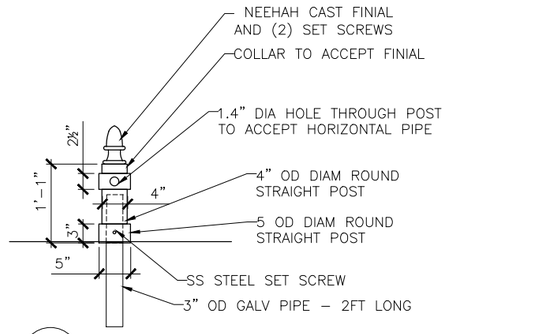
1 BOLLARD AND BIKE RACK BID ITEM
SURFACE MOUNT- INSTALL IN PAVERS



2 BOLLARD AND BIKE RACK BID ITEM
SURFACE MOUNT- INSTALL IN CONCRETE

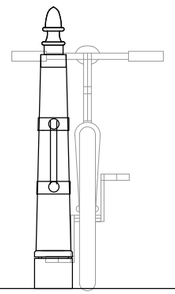


3 ORNAMENTAL METAL RAILING TYPE SPECIAL POST
-INSTALL IN PLANTING BED



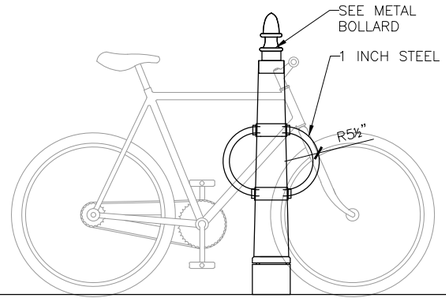
4 ORNAMENTAL METAL RAILING POST
-INSTALL IN CONC. CURB DESIGN SPECIAL

THESE CASTINGS ARE MANUFACTURED PRODUCTS TO BE SUPPLIED BY CONTRACTOR AND DIMENSIONS ARE SHOW HERE FOR REFERENCE, REFER TO LS SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



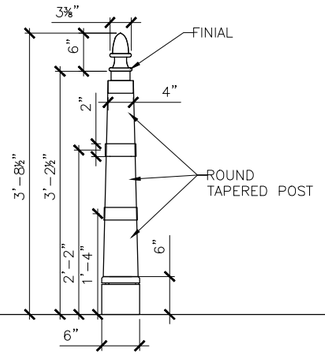
SIDE VIEW

BIKE RACK - SIDE VIEW

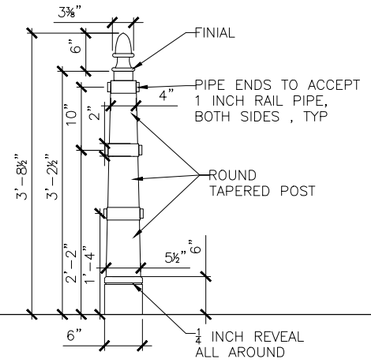


FRONT VIEW

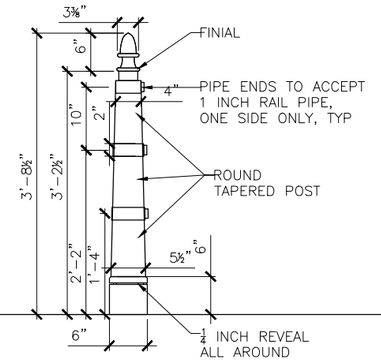
BIKE RACK - FRONT VIEW



BOLLARD



MID POST OF ORNAMENTAL FENCE DESIGN SPECIAL



END POST OF ORNAMENTAL FENCE DESIGN SPECIAL

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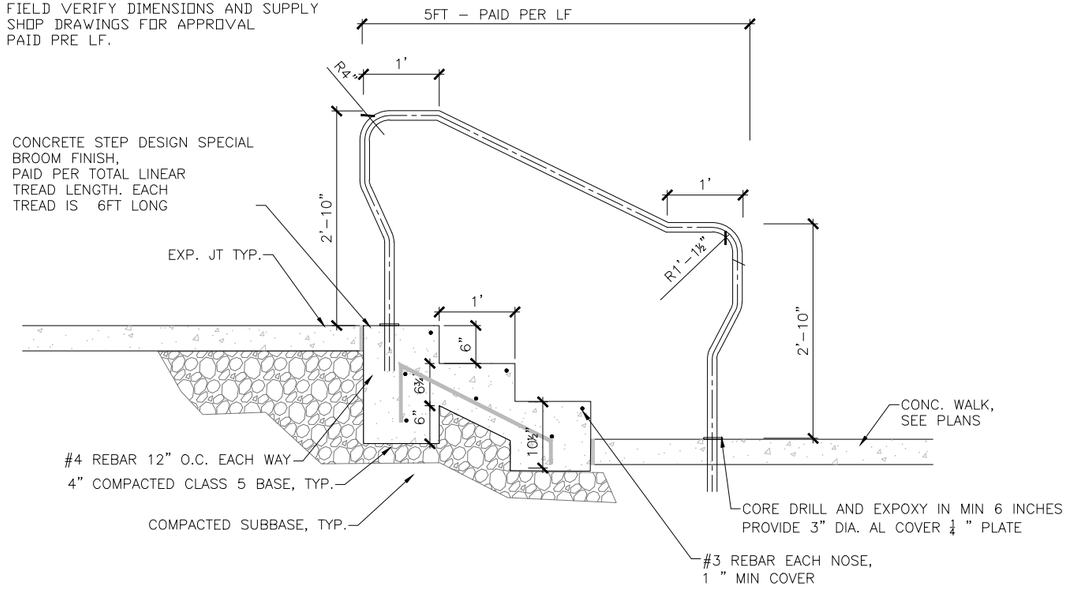
PAUL PAIGE, LA
LIC. NO. 23594 DATE 03/08/2022

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DRAWN	AB, TS
CHECKED	PP

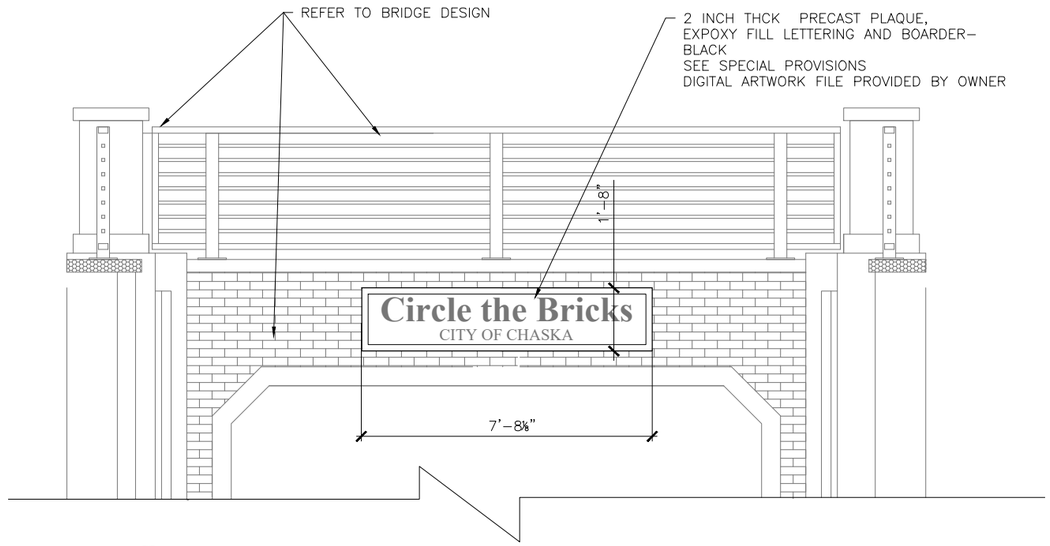
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STREETSCAPE DETAILS

SHEET L26 OF L29

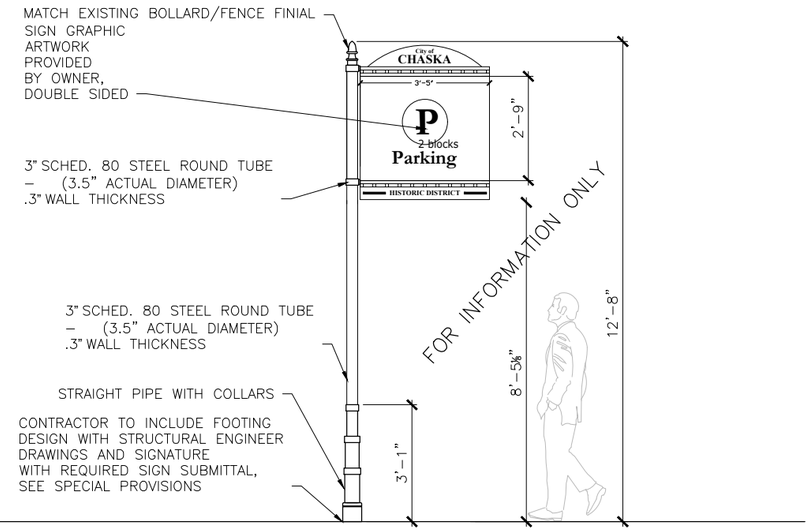
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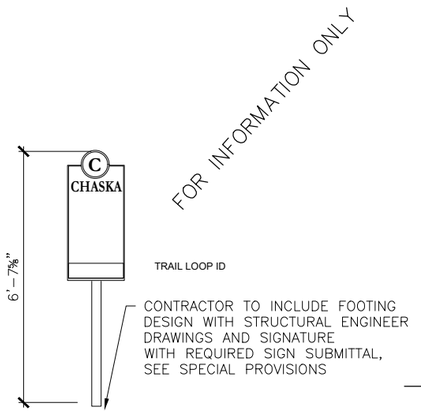
1 CONCRETE STEPS DESIGN SPECIAL AND PIPE RAIL DESIGN SPECIAL



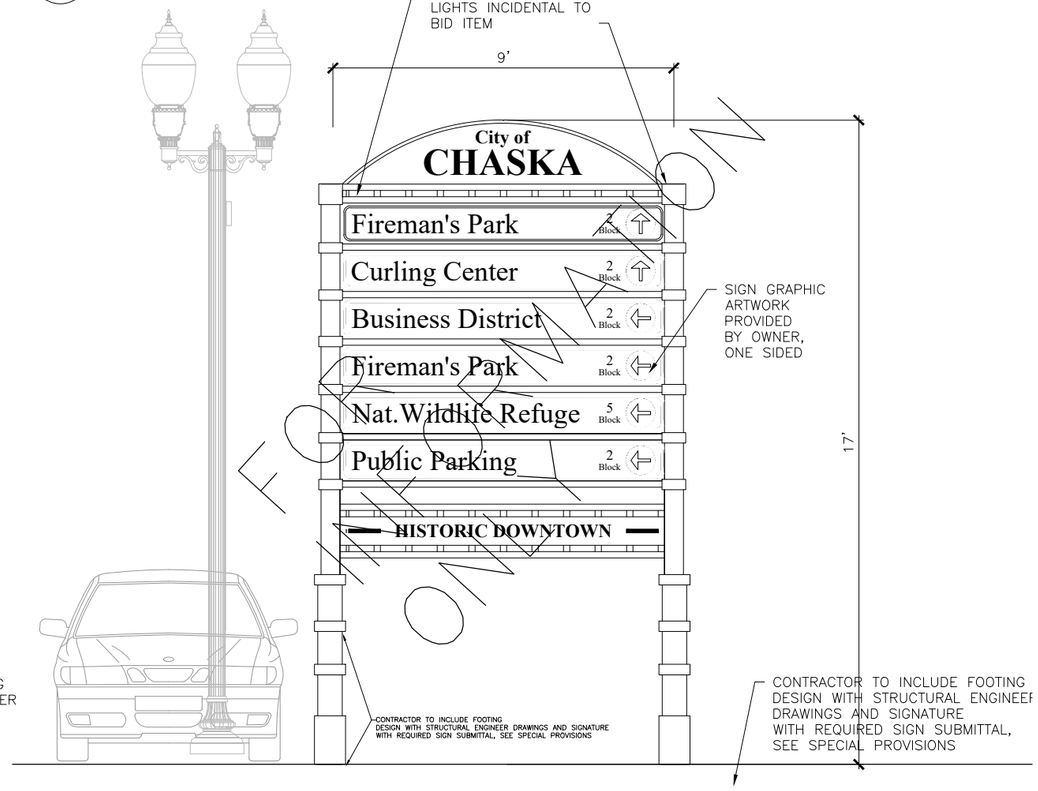
2 BRIDGE PLAQUE



3 INFORMATIONAL SIGN TYPE A & INFORMATION SIGN TYPE B - BY OTHERS
(PEDESTRIAN/VEHICLE DOWNTOWN WAYFINDING /PARKING SIGN)



4 INFORMATIONAL SIGN SPECIAL- BY OTHERS
(TRAIL WAYFINDING SIGN)



5 INFORMATIONAL SIGN - BY OTHERS
(VEHICULAR DOWNTOWN ENTRY WAYFINDING SIGN)

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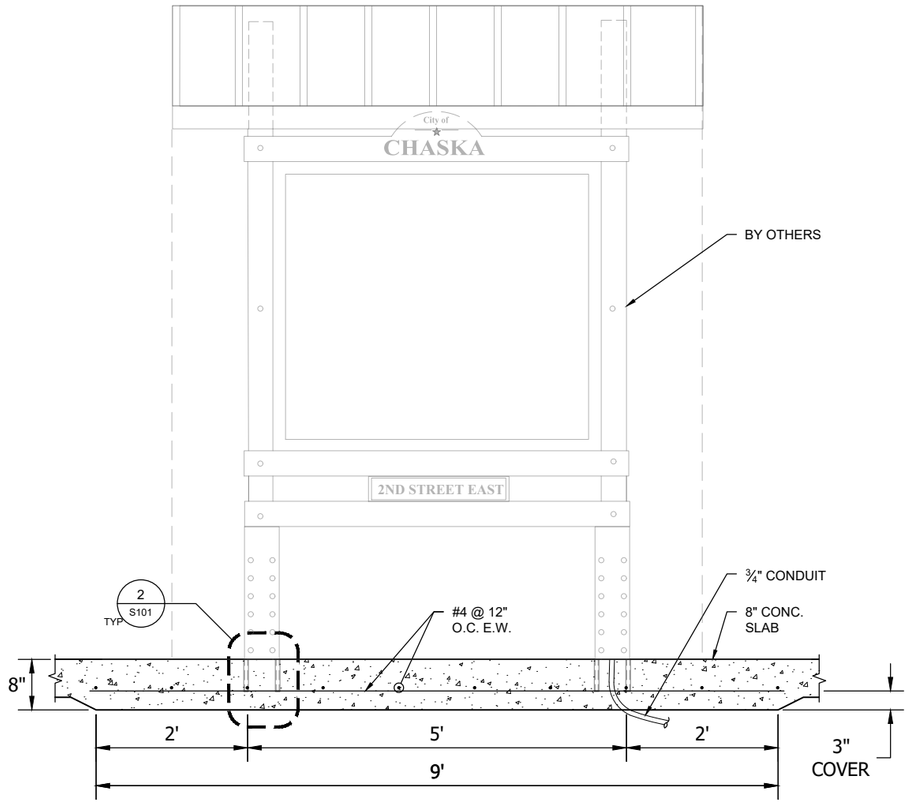
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STREETSCAPE DETAILS

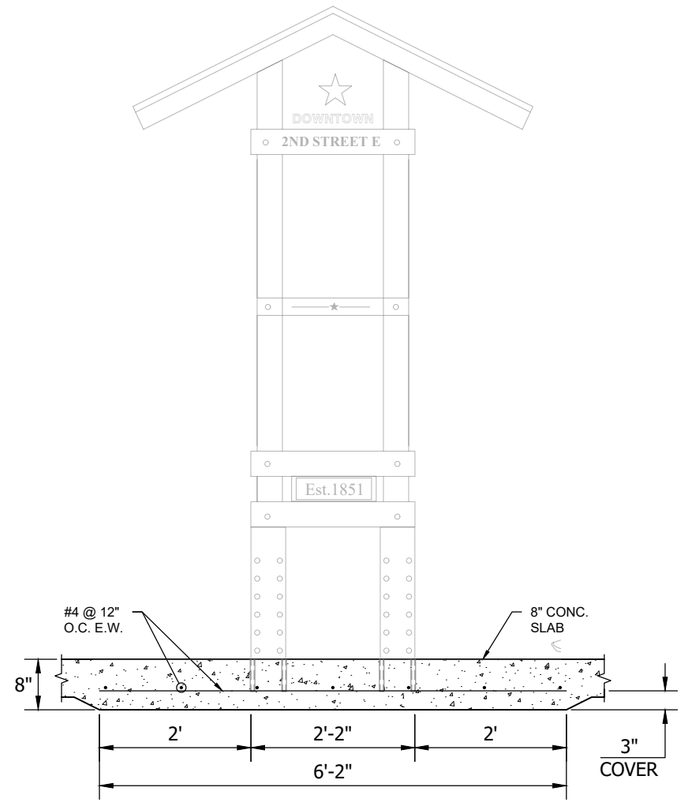
SHEET L27 OF L29

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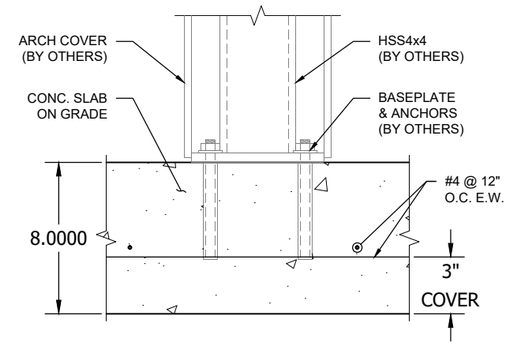


ELEVATION

1 KIOSK
NO SCALE



STREET ELEVATION



2 KIOSK ANCHOR DETAIL
NO SCALE

STRUCTURAL NOTES:

CODES:
IBC 2012, ASCE 7-10, ACI 318-11

DEAD LOADS (D)

CONCRETE	150 PCF
ROOF	10 PSF

ROOF LIVE LOADS (Lr)

UNFIORM	20 PSF

SNOW LOAD (S)

Pg	50 PSF
RISK	I
I	0.8
Ce	1.0
Ct	1.2
Cs	1.0
DRIFT	PER MSBC

WIND LOAD (W)

V	105 MPH
RISK	I
EXPOSURE	C
K_d	0.85
K_{zt}	1.0

SOIL LOADS

SURFACE SURCHARGE	250 PSF
NET ALLOWABLE BEARING PRESSURE	2000 PSF

MATERIAL:

1.	CONCRETE	MEETS MNDOT MIX NO. 3S52C
2.	REINFORCEMENT BARS	ASTM A615, GRADE 60
3.	FILL	
	GRANULAR BACKFILL	MEETS GRADATION REQUIREMENTS OF MNDOT 3149.2.D

CONSTRUCTION NOTES:

1. EXCAVATION
   - A. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY SHORING AND BRACING NECESSARY TO PROTECT PERSONNEL AND PROPERTY FROM INJURY OR DAMAGE DURING CONSTRUCTION OPERATION.
   - B. DO NOT BACKFILL AGAINST STRUCTURE UNTIL ALL COMPONENTS HAVE BEEN CONSTRUCTED AND HAVE REACHED FULL STRENGTH (E.G., CONCRETE SLABS AND INTERSECTING WALLS).
2. CONCRETE
   - A. LAP SPLICES AND 90 DEGREE END HOOKS SHALL BE AS SHOWN BELOW UNLESS NOTED.

REINF BAR SIZE	SLAB, WALL, COLUMN		BEAMS		90 DEG END HOOK
	BAR LAP	TOP BAR *	BAR LAP	TOP BAR *	
#3	19 IN	24 IN	28 IN	36 IN	6 IN
#4	25 IN	32 IN	37 IN	48 IN	8 IN

* TOP BAR LAP SPLICES ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 IN. OF CONCRETE IS CAST IN THE MEMBER BELOW THE SPLICE.

   - B. REINFORCING BARS SHALL HAVE THE FOLLOWING CONC. COVER UNLESS NOTED.
     1. CONCRETE CAST AGAINST EARTH 3"
     2. ALL OTHER CONCRETE 2"
   - C. CONCRETE SHALL BE PLACED WITHOUT CONSTRUCTION JOINTS EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER.
   - D. VERIFY SIZE AND LOCATION OF CONDUIT AND OTHER EMBEDMENTS.
   - E. PROVIDE STANDARD CONCRETE DETAILS SHOWN ON THE DRAWING UNLESS NOTED.

FOUNDATION NOTES:

1. VERIFY SIZE, LOCATION AND ELEVATION OF EXISTING FOOTINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPENCIES.
2. COMPACT SURFACE OF FOUNDATION SOILS PRIOR TO PLACING ONCRETE.
3. DESIGN ALLOWABLE SOIL BEARING PRESSURE = 2,000 PSF.
4. PROVIDE STANDARD DETAILS SHOWN ON THE DRAWING UNLESS NOTED.

Plotted Date: 3/16/2022 L28
Drawing Name: C:\cvz_dn_lh_jrfra01\dms80398\pn122211_str.dwg
Xrefs: dgn122211_bdr-Structural, 016-049 STREETSCAPE DETAIL - KIOSK ARCH.dgn

0 3 6
SCALE FEET

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733 Marquette Avenue, Suite 1000
Minneapolis MN 55402
www.stantec.com

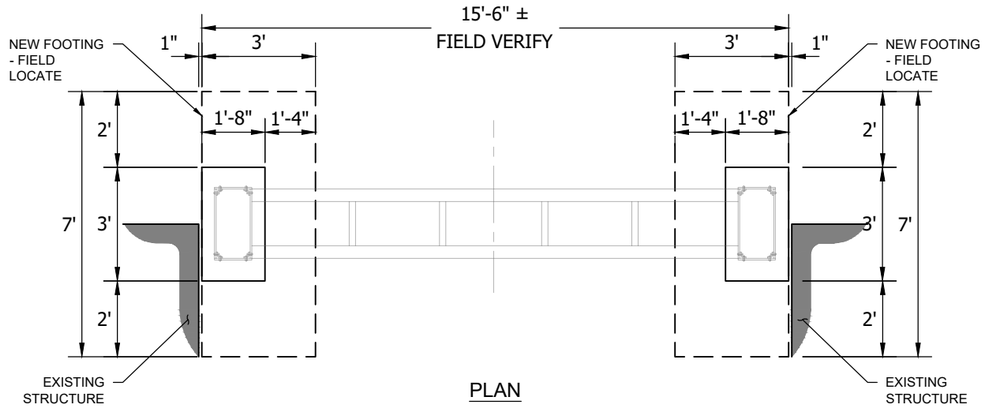
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BRIAN G. BELLEMARE
LIC. NO. 50378 DATE 03-04-2022

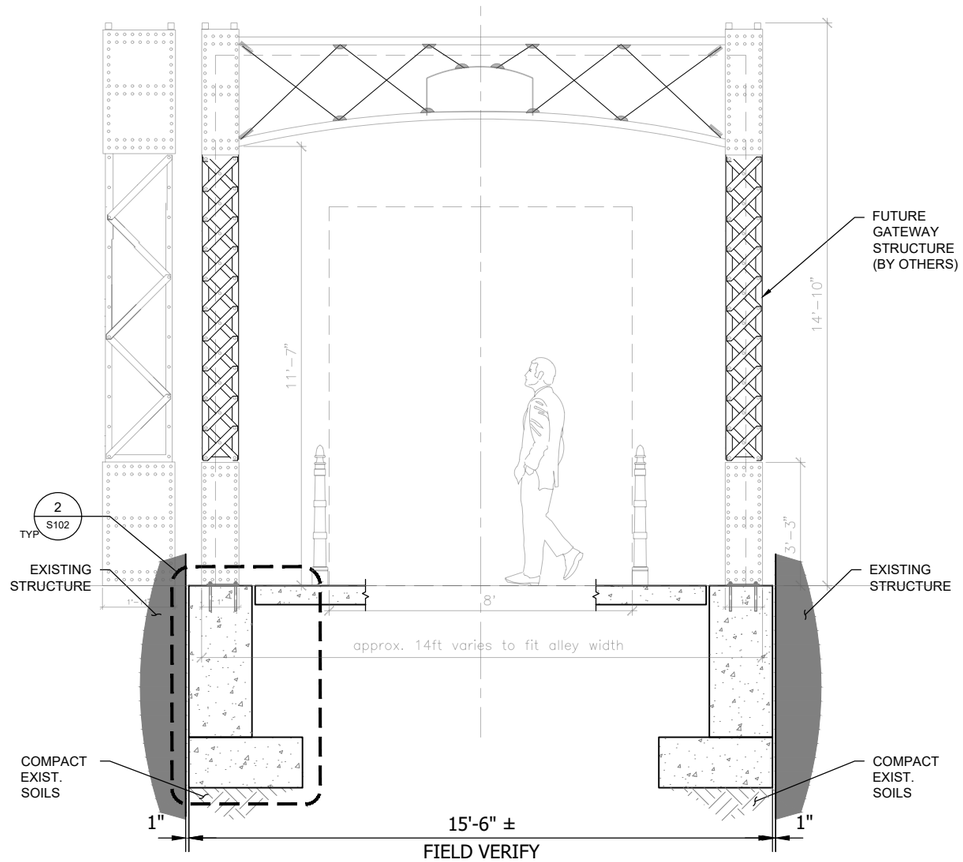
DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
GATEWAY AND KIOSK STRUCTURAL DETAIL

SHEET L28 OF 518

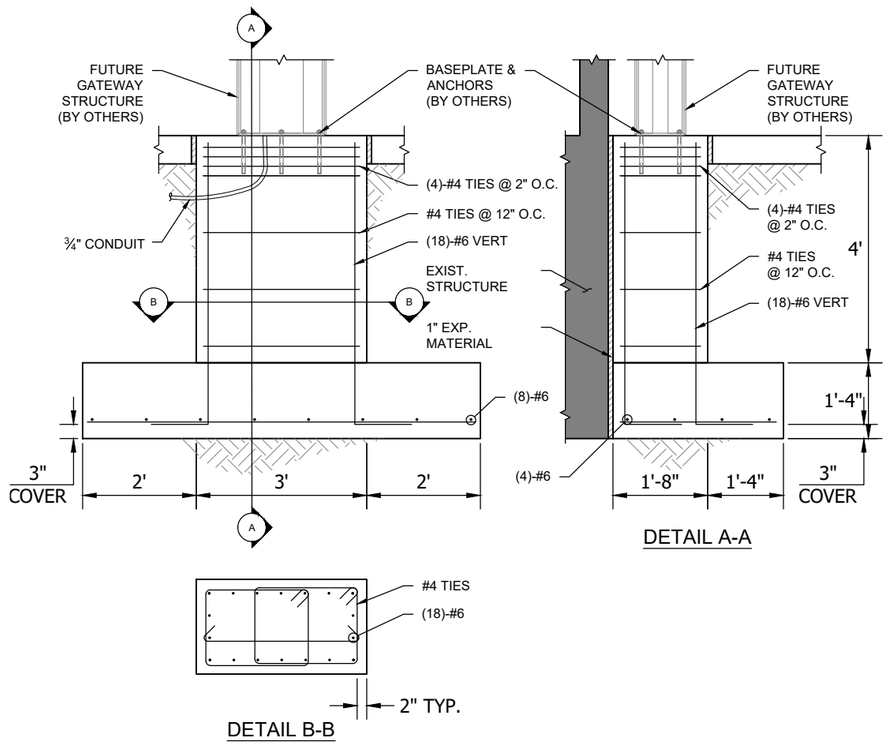


PLAN



ELEVATION

1 GATEWAY
NO SCALE



DETAIL A-A

DETAIL B-B

2 GATEWAY FOOTING DETAIL
NO SCALE

Plotted: Date: 3/16/2022 - 1:29
Drawing: C:\Civil_Projects\...\dtn_bh_jnfa01dma80398\gis123211_str.dwg
Xrefs: d123211_bdr-Structural_016-049 STREETSCAPE DETAIL - KIOSK ARCH draft

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
BRIAN G. BELLEMARE
LIC. NO. 50378 DATE 03-04-2022

DESIGNED	MRR
DRAWN	JLT/PJW
CHECKED	MRL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
GATEWAY AND KIOSK STRUCTURAL DETAIL

SHEET L29 OF 518

NOTES & GUIDELINES

GENERAL INFORMATION:

1. ALL DISTANCES ARE APPROXIMATE.

SIGNING:

1. ALL TEMPORARY SIGNS ARE REQUIRED TO BE CRASHWORTHY PER THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE 2016 (MASH-2016). TEMPORARY SIGN STRUCTURES THAT ARE CRASHWORTHY UNDER THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP-350) MAY BE USED PROVIDED THE DEVICES WERE ACQUIRED BY THE CONTRACTOR PRIOR TO DECEMBER 31ST, 2019. THE MINNESOTA TYPE "C" AND "D" BRACED LEG U-CHANNEL (KNEE BRACE) SIGN SUPPORT IS NOT ALLOWED.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE PLACED AS NEEDED, OR PROVIDE TEMPORARY SIGNING UNTIL THE FINAL SIGNING IS PLACED.
3. WHEN MULTIPLE GROUND MOUNTED SIGN STRUCTURES ARE PLACED ADJACENT TO EACH OTHER THERE SHOULD BE NO MORE THAN 2 POSTS WITHIN 84" OF EACH OTHER. WHEN THIS SPACING CAN NOT BE MAINTAINED, THEN SIGN STRUCTURES SHALL BE OFFSET, AND STAGGERED WITH A MINIMUM OF 4' BETWEEN SIGN STRUCTURES BOTH LATERALLY AND LONGITUDINALLY. EXAMPLE SHOWS DETOUR SIGNAGE, BUT THIS REQUIREMENT APPLIES TO ALL SIGNAGE.
4. WHEN A SIGN OR BARRICADE IS ORIENTED SUCH THAT VISIBILITY TO ROAD USERS INCLUDING BIKES AND PEDESTRIANS IS REDUCED ENOUGH TO CAUSE A HAZARD, DELINEATE THE SIGN/BARRICADE WITH APPROPRIATE DEVICES.
5. TEMPORARY SIGNS SHALL BE PLACED SUCH THAT OBSTACLES DO NOT BLOCK THEM FROM BEING VIEWED BY APPROACHING ROAD USERS. OBSTACLES MAY INCLUDE, BUT ARE NOT LIMITED TO, LIGHT POLES, TREES, SIGNS, AND BUILDINGS.
6. TEMPORARY SIGNS SHALL BE PLACED AND ORIENTED APPROXIMATELY AS SHOWN IN THE PLAN, AT RIGHT ANGLES TO DIRECTION OF AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE, UNLESS OTHERWISE SPECIFIED.
7. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL" PAGES (6K-aj) THRU (6K-al) UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
8. AFTER REMOVAL OF SIGN AND/OR SIGN BASE, BACK FILL, COMPACT, AND LEVEL SOIL TO MATCH SURROUNDING SOIL.

PAVEMENT MARKING:

1. MASK OR REMOVE ANY CONFLICTING PAVEMENT MARKINGS AS SHOWN IN THE PLAN OR APPROVED BY THE ENGINEER.
2. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE WET REFLECTIVE. ALL PAVEMENT MARKINGS IN TAPERS AND TRANSITIONS SHALL BE 6" IN WIDTH.
3. SEE 2582 IN THE SPECIAL PROVISIONS FOR PAVEMENT MARKING SPOTTING RESPONSIBILITIES.

CONSTRUCTION INFORMATION SIGNING:

1. THE CONTRACTOR SHALL USE CONSTRUCTION INFORMATION SIGNING AS SHOWN IN THE PLAN WHICH ARE TO BE USED AS FOLLOWS:

   PLACE THE G20-X1 ADVANCE CLOSURE NOTICE SIGN(S) 7 DAYS PRIOR TO THE PLANNED CLOSURE DATE.

   PLACE G20-X2 ADVANCE NOTICE SIGNS 7 DAYS PRIOR TO THE WORK STARTING DATE. ONCE WORK BEGINS, COVER THE START DATE LEGEND WITH SUGGESTED PLAQUE CONTAINED IN THIS PLAN. IF NO ALTERNATE MESSAGE IS SHOWN IN THE PLAN OR APPROVED BY THE ENGINEER, DISPLAY THE CORRECT ESTIMATED FINISH DATE, MONTH, OR SEASON.

   IF CONSTRUCTION INFORMATION SIGNING IS NO LONGER VISIBLE TO THE MOTORING PUBLIC ONCE WORK BEGINS, MOVE SAID SIGNING TO A SITE IN ADVANCE OF THE WORK ZONE OR CLOSURE AS SHOWN IN THE PLAN OR APPROVED BY THE ENGINEER.

   THE CONTRACTOR SHALL PROVIDE AND USE A MINIMUM OF FOUR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) DURING CONSTRUCTION. LOCATION OF THE PCMS WILL BE DETERMINED BY THE ENGINEER. SEE SPECIAL PROVISIONS.

UPDATED 12/20/2021

INDEX

TRAFFIC CONTROL SHEET NO.	DESCRIPTIONS
TC-1	TEMPORARY TRAFFIC CONTROL TITLE SHEET
TC-2	TEMPORARY TRAFFIC CONTROL STAGING NOTES
TC-3	TEMPORARY TRAFFIC CONTROL PAY ITEM TABULATIONS
TC-4 - TC-5	TEMPORARY TRAFFIC CONTROL SIGNING TABULATIONS
TC-6 - TC-8	TEMPORARY SIGNING DETAILS
TC-9 - TC-13	SPECIAL SIGN DETAILS
TC-14	STAGING OVERVIEW
TC-15 - TC-17	ADVANCE SIGNING
TC-18 - TC-29	DETOUR PLANS
TC-30 - TC-32	BUSINESS ACCESS SIGNAGE
TC-33	TEMPORARY PEDESTRIAN ACCESS ROUTE TYPICALS
TC-34 - TC-35	ALTERNATE PEDESTRIAN ROUTES AND DEVICES
TC-36	TYPICALS

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	AREA CLOSED TO TRAFFIC / WORK AREA		AUDIBLE MESSAGE DEVICE (AMD)
	TRAFFIC CONTROL SIGN		TEMPORARY PEDESTRIAN RAMP
	TYPE III BARRICADE =		TEMPORARY WALKWAY SURFACE
F	TYPE A FLASHING WARNING LIGHT		PORTABLE PRECAST CONC BARRIER DES 8337 (PPCB)
	DRUM-LIKE CHANNELIZER (TYPE B) =		

I HEREBY CERTIFY THAT SHEETS TC-1 THROUGH TC-36 OF THIS PLAN WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Michael S Larsson

MICHAEL S. LARSON LIC. NO. 58850

DESIGNER ALEX MAKI DATE 03-02-2022

TITLE: TEMPORARY TRAFFIC CONTROL TITLE SHEET

BOLTON & MENK

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC1 OF TC36

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STAGING AND TRAFFIC CONTROL PLAN

NOTES & GUIDELINES

PROJECT STAGING NOTES

1. THE CONTRACTOR SHALL FOLLOW THE MOST RECENT VERSION OF THE "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL" FOR ANY SHORT TERM LANE AND/OR SHOULDER CLOSURES OR OTHER TRAFFIC CONTROL LAYOUTS NOT DETAILED IN THIS PLAN NECESSARY TO COMPLETE THE WORK IN ADDITION TO THE DETOURS AND DETAILS PROVIDED IN THE PLAN. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A LIST OF THE LAYOUTS BEING USED FROM THE "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL". THE CONTRACTOR SHALL SUBMIT THE LIST OF LAYOUTS 72 HOURS PRIOR TO COMMENCING THE WORK. THE ENGINEER MAY REQUIRE MODIFICATIONS AND/OR ADDITIONS TO THE LAYOUTS. MODIFICATIONS AND/OR ADDITIONS TO THE DEVICES SHOWN IN A LAYOUT ARE INCLUDED AS PART OF THE TRAFFIC CONTROL LUMP SUM.

2. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO BUSINESSES AT ALL TIMES DURING CONSTRUCTION BY USING ALTERNATE PEDESTRIAN ROUTES AND TEMPORARY PEDESTRIAN ACCESS ROUTES. SEE THE PLANS AND STANDARD PLANS FOR DETAILS.

3. PEDESTRIAN AND VEHICLE ACCESS ACROSS TH 41 SHALL BE MAINTAINED AT EITHER CSAH 61 OR 4TH STREET AT ALL TIMES TO FACILITATE LOCAL MOBILITY. EITHER INTERSECTION SHALL PROVIDE AN ACCESSIBLE AND PAVED CROSSING OF TH 41 TO ALL TRAFFIC BEFORE WORK MAY BEGIN ON THE OTHER INTERSECTION.

4. THE CONTRACTOR SHALL MAINTAIN A SUPPLY ON SITE OF A MINIMUM OF 20 DRUM BARRELS, 12 STOP SIGNS, AND 20 TYPE III BARRICADES AT ALL TIMES THAT ARE TO BE IMPLEMENTED AS DIRECTED BY THE ENGINEER OR MNDOT FIELD REPRESENTATIVE. TYPE III BARRICADES SHALL BE AFFIXED WITH "LOCAL TRAFFIC ONLY" SIGNS. THIS WORK IS INCLUDED IN THE LUMP SUM TRAFFIC CONTROL BID ITEM.

ALTERNATE PEDESTRIAN ROUTE

1. WHEN CROSSWALKS, SIDEWALKS OR OTHER PEDESTRIAN FACILITIES ARE BLOCKED, CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.

2. REFER TO THE MNDOT TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) WEB SITE FOR STANDARDS, GUIDANCE AND OPTIONS WHEN BLOCKING, CLOSING, OR RELOCATING PEDESTRIAN FACILITIES.

3. TWO ADJACENT INTERSECTIONS ALONG TH 41 SHALL NOT BE CLOSED TO PEDESTRIANS AT THE SAME TIME. THIS IS REQUIRED TO FACILITATE PEDESTRIAN MOVEMENTS THROUGHOUT THE CONSTRUCTION AREA AND TO LIMIT THE LENGTH OF DETOUR ROUTES. ACCESS TO ALL RESIDENCES AND BUSINESSES SHALL BE MAINTAINED AT ALL TIMES UNLESS ACTIVE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED WITHIN CLOSE PROXIMITY OF THE ACCESS AND IT IS PREVIOUSLY APPROVED BY THE ENGINEER.

4. REFER TO THE MNDOT TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL FOR DETAILS OF TYPICAL ADA PEDESTRIAN DEVICES.

5. REFER TO LAYOUTS IN THE MNDOT TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL (JANUARY 2018) FOR ADDITIONAL DETAILS ON CROSSWALK CLOSURES, PEDESTRIAN DETOURS, AND SIDEWALK BY-PASSES.

6. FOR ADDITIONAL STANDARDS, GUIDANCE, AND OPTIONS FOR DESIGNING TEMPORARY PEDESTRIAN ACCESS ROUTES, REFER TO THE MNDOT TPAR WEB SITE.

STAGE 1

1. STAGE 1 SHALL BE COMPLETED IN YEAR 1 OF CONSTRUCTION (2022).

2. STAGE 1 REGIONAL AND PEDESTRIAN DETOUR ROUTES SHALL BE UTILIZED DURING YEAR 1 OF CONSTRUCTION.

3. CSAH 61, BETWEEN WALNUT ST. AND THE EASTERN PROJECT LIMITS, SHALL BE CONSTRUCTED UNDER TRAFFIC DURING STAGE 1B. TWO -WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. ACCESS SHALL BE MAINTAINED AT THE YELLOW BRICK RD. AND WALNUT ST. INTERSECTIONS AT ALL TIMES. ANY ROAD CLOSURES MUST BE COORDINATED WITH AND APPROVED BY THE ENGINEER. SEE SPECIAL PROVISIONS.

4. THE EXISTING TRAFFIC SIGNAL AT CSAH 61 AND WALNUT ST. SHALL BE REMOVED AND REPLACED DURING STAGE 1. A TEMPORARY THREE- WAY STOP SHALL BE IMPLEMENTED WHEN AN OPERATIONAL SIGNAL SYSTEM IS NOT IN PLACE.

5. THE CONTRACTOR SHALL ENSURE THAT ACCESS FROM CSAH 61 IS PROVIDED AT ALL TIMES TO CHASERS BEVERAGE CENTER AND DOLCE VITA WINE DURING STAGE 1.

6. STAGE 1A MAY OCCUR CONCURRENTLY WITH STAGE 1B.

STAGE 2

1. STAGE 2 SHALL BE COMPLETED IN YEAR 2 OF CONSTRUCTION (2023).

2. STAGE 2 DETOUR ROUTES SHALL BE UTILIZED IN YEAR 2 OF CONSTRUCTION. YEAR 2 PEDESTRIAN DETOUR AND BUSINESS ACCESS SIGNAGE SHALL BE IMPLEMENTED AS NOTED IN THE PLANS.

3. STAGE 2A MAY OCCUR SIMULTANEOUSLY WITH STAGE 2B AND SHALL BE COMPLETED WITH THE AREA FULLY OPEN TO TRAFFIC WITHIN 45 CALENDAR DAYS OF CLOSING THE TH 41 AND CSAH 61 INTERSECTION TO TRAFFIC.

4. CROSSINGS OF TH 41 SHALL BE PROVIDED AT TWO OF THE THREE FOLLOWING LOCATIONS AT ALL TIMES:
   - CSAH 61
   - 2ND ST.
   - 4TH ST.

5. TH 41 SHALL REMAINED CLOSED TO THRU TRAFFIC BETWEEN CSAH 61 AND THE SOUTHERN PROJECT LIMIT UNTIL ALL MAJOR WORK INCLUDED IN STAGE 2B IS COMPLETE, AS APPROVED BY THE ENGINEER.

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC2 OF TC36

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STAGING AND TRAFFIC CONTROL PLAN

PAY ITEM TABULATION

TEMPORARY TRAFFIC CONTROL							X
STAGE	2533	2563					
	PORTABLE PRECAST CONC BARRIER DES 8337	TEMPORARY PEDESTRIAN RAMP	PEDESTRIAN CHANNELIZER	PORTABLE CHANGEABLE MESSAGE SIGN (1)	AUDIBLE MESSAGE DEVICE	TEMPORARY WALKWAY SURFACE	CONSTRUCTION SIGN-SPECIAL (2)
	LIN FT	EACH	LIN FT	UNIT DAY	UNIT DAY	SQ FT	SQ FT
S.P. 1008-87 (T.H. 41)							
STAGE 1				14	2250		100
STAGE 2A	100			28	720		100
STAGE 2B	50	10	5000	14		300	100
S.P. 1008-87 (T.H. 41) TOTALS	**150**	**10**	**5000**	**56**	**2970**	**300**	**300**

NOTES:
(1) LOCATION AND DEPLOYMENT DURATION TO BE DETERMINED AND ASSIGNED BY ENGINEER.
(2) FOR USE AT THE DISCRETION OF THE ENGINEER.

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC3 OF TC36

"M" SERIES

SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (W×H)	ASSEMBLY (IN. X IN.) (W×H)	NUMBER OF POST	POST SPACING INCHES
DETOUR NORTH SOUTH MINNESOTA 41 ARROWS	M4-8	BLACK ON ORANGE	24" X 12" OR 36" X 18"(1)	24" X 63" OR 36" X 93"(1)	1	
	M3-1 OR M3-3	WHITE ON BLUE	24" X 12" OR 36" X 18"(1)			
	M1-5a	WHITE AND GOLD ON BLUE	24" X 24" OR 36" X 36"(1)			
	M5-1, M5-2, M5-3, M6-1, M6-2, M6-3	WHITE ON BLUE	21" X 15" OR 30" X 21"(1)			
DETOUR EAST WEST CR 61 COUNTY ARROWS	M4-8	BLACK ON ORANGE	24" X 12" OR 36" X 18"(1)	24" X 63" OR 36" X 93"(1)	1	
	M3-2 OR M3-4	WHITE ON BLUE	24" X 12" OR 36" X 18"(1)			
	M1-4X	BLACK ON WHITE	24" X 24" OR 36" X 36"(1)			
	M5-1, M5-2, M5-3, M6-1, M6-2, M6-3	BLACK ON WHITE	21" X 15" OR 30" X 21"(1)			
END DETOUR EAST WEST CR 61 COUNTY	M4-8a	BLACK ON ORANGE	24" X 18"	24" X 54"	1	
	M3-2 OR M3-4	WHITE ON BLUE	24" X 12"			
	M1-4X	BLACK ON WHITE	24" X 24"			
END DETOUR NORTH SOUTH MINNESOTA 41	M4-8a	BLACK ON ORANGE	24" X 18"	24" X 54"	1	
	M3-1 OR M3-3	WHITE ON BLUE	24" X 12"			
	M1-5a	WHITE AND GOLD ON BLUE	24" X 24"			

"W" SERIES

SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (W×H)	ASSEMBLY (IN. X IN.) (W×H)	NUMBER OF POST	POST SPACING INCHES
EAST WEST CR 61 COUNTY DETOUR AHEAD	M3-2 OR M3-4	WHITE ON BLUE	24" X 12"	48" X 84"	1	
	M1-4X	BLACK ON WHITE	24" X 24"			
	W20-2	BLACK ON ORANGE	48" X 48"			
NORTH SOUTH MINNESOTA 41 DETOUR AHEAD	M3-1 OR M3-3	WHITE ON BLUE	24" X 12"	48" X 84"	1	
	M1-5a	WHITE AND GOLD ON BLUE	24" X 24"			
	W20-2	BLACK ON ORANGE	48" X 48"			
EAST WEST CR 61 COUNTY ROAD CLOSED AHEAD	M3-2 OR M3-4	WHITE ON BLUE	24" X 12"	48" X 84"	1	
	M1-4X	BLACK ON WHITE	24" X 24"			
	W20-3	BLACK ON ORANGE	48" X 48"			
NORTH SOUTH MINNESOTA 41 ROAD CLOSED AHEAD	M3-1 OR M3-3	WHITE ON BLUE	24" X 12"	48" X 84"	1	
	M1-5a	WHITE AND GOLD ON BLUE	24" X 24"			
	W20-3	BLACK ON ORANGE	48" X 48"			
ROAD CLOSED AHEAD XXX MILE XXX FEET	W20-3	BLACK ON ORANGE	48" X 48"	48" X 66"	1	
	W16-2P OR W16-3P	BLACK ON ORANGE	24" X 18"			

BARRICADE MOUNTED SIGNS

SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (W×H)
ROAD CLOSED	R11-2	BLACK ON WHITE	48" X 30"
ROAD CLOSED TO THRU TRAFFIC	R11-4	BLACK ON WHITE	60" X 30"
SIDEWALK CLOSED	R9-9	BLACK ON WHITE	30" X 18"
NO ACCESS TO CHASKA USE DETOUR	WZ-19 (2)	BLACK ON ORANGE	60" X 30"
DETOUR DETOUR	M4-9aM	BLACK ON ORANGE	30" X 24"
XXX MILE XXX FEET	W16-2P OR W16-3P	BLACK ON ORANGE	24" X 18"

GENERAL NOTES;

1. SIGN STRUCTURE TABULATIONS INDICATE SQUARE TUBE GROUND MOUNTED SIGN STRUCTURES THAT ARE MASH-16 COMPLIANT.
2. USE PRODUCTS FROM THE BASES FOR SQUARE TUBE SIGN STRUCTURES APPROVED/QUALIFIED PRODUCTS LIST FOR THE INDICATED SQUARE TUBE RISER POST SIZE. PLACE PER THE MANUFACTURER'S SPECIFICATIONS.
3. ALUMINUM STRINGERS SHALL BE USED FOR SIGNS 36 INCHES AND WIDER. SEE MANUFACTURER'S SPECIFICATIONS FOR SQUARE TUBE MOUNTING DETAILS. STRINGERS ON SINGLE POST ASSEMBLIES ARE REQUIRED TO BE AT LEAST 9 INCHES IN FROM THE EDGE OF THE SIGN.
4. UNLESS OTHERWISE INDICATED, USE 2-1/2 INCH RISER POSTS FOR GROUND MOUNTED SIGN STRUCTURES.

SPECIFIC NOTES:

(1) FOR USE ON TH 212 AND TH 169

(2) SEE SPECIAL SIGN DETAILS SHEET FOR SIGN DETAILS.

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SHEET TC4 OF TC36

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"G" SERIES

SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (W×H)	ASSEMBLY (IN. X IN.) (W×H)	NUMBER OF POST	POST SPACING INCHES
ROAD CLOSED BEGINNING MONTH DY	G20-X1	BLACK ON ORANGE	54" X 48"	54" X 48"	2	
Chestnut St EAST SIDE / Chestnut St WEST SIDE / Chestnut St	WZ-21 WZ-22 (2) WZ-23	BLACK ON ORANGE	42" X 21" 42" X 21" 42" X 15"	48" X 57" OR 48" X 51"	1	
BUSINESS ACCESS ⇦ / BUSINESS ACCESS ⇨ / BUSINESS ACCESS ⇧	G20-X6	BLACK ON ORANGE	48" X 36"			

"D" SERIES

SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (W×H)	ASSEMBLY (IN. X IN.) (W×H)	NUMBER OF POST	POST SPACING INCHES
P ⇦ PARKING	D4-1	GREEN ON WHITE	30" X 24"	30" X 24"	1	

"R" SERIES

SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.) (W×H)	ASSEMBLY (IN. X IN.) (W×H)	NUMBER OF POST	POST SPACING INCHES	
STOP	R1-1	WHITE ON RED	36" X 36"	36" X 42"	1		(3)
ALL WAY	R1-3P	WHITE ON RED	18" X 6"				

GENERAL NOTES;

1. SIGN STRUCTURE TABULATIONS INDICATE SQUARE TUBE GROUND MOUNTED SIGN STRUCTURES THAT ARE MASH-16 COMPLIANT.
2. USE PRODUCTS FROM THE BASES FOR SQUARE TUBE SIGN STRUCTURES APPROVED/QUALIFIED PRODUCTS LIST FOR THE INDICATED SQUARE TUBE RISER POST SIZE. PLACE PER THE MANUFACTURER'S SPECIFICATIONS.
3. ALUMINUM STRINGERS SHALL BE USED FOR SIGNS 36 INCHES AND WIDER. SEE MANUFACTURER'S SPECIFICATIONS FOR SQUARE TUBE MOUNTING DETAILS. STRINGERS ON SINGLE POST ASSEMBLIES ARE REQUIRED TO BE AT LEAST 9 INCHES IN FROM THE EDGE OF THE SIGN.
4. UNLESS OTHERWISE INDICATED, USE 2-1/2 INCH RISER POSTS FOR GROUND MOUNTED SIGN STRUCTURES.

SPECIFIC NOTES:

(2) SEE SPECIAL SIGN DETAILS SHEET FOR SIGN DETAILS.

(3) ALL WAY STOP ASSEMBLIES TO BE USE AS DIRECTED BY THE ENGINEER.

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SHEET TC5 OF TC36

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GENERAL NOTES;

1. GROUND MOUNTED SQUARE TUBE SIGN STRUCTURES PLACED WITHIN 50' OF THE RADIUS END OF AN INTERSECTION SHALL BE PLACED ON ONE 2" OR 2-1/2" POST.
2. FOR 2" SQUARE TUBE RISER POST IN SOIL, USE FIN BASE PLACED PER MANUFACTURER'S SPECIFICATIONS. USE A 2" X 2" PRE-PUNCHED, GALVANIZED STEEL, SQUARE TUBE RISER POST. PLACE 3/8" STAINLESS STEEL BOLT THROUGH THE 5TH HOLE DOWN FROM THE TOP OF THE BASE. RISER POST SHALL REST ON THE BOLT.
3. FOR 2-1/2" SQUARE TUBE RISER POST IN SOIL, USE SLIP BASE PLACED PER MANUFACTURER'S SPECIFICATIONS USING A 10 GAUGE , 2-1/2" X 2-1/2" PRE-PUNCHED, GALVANIZED STEEL, SQUARE TUBE RISER POST WITH A 10 GAUGE 2-3/16" X 2-3/16" PRE-PUNCHED, GALVANIZED STEEL, SQUARE TUBE INTERNAL INSERT.

SPECIFIC NOTES;

① IF ANY PART OF A SIGN OR SIGN ASSEMBLY EXTENDS MORE THAN 4" INTO THE PEDESTRIAN FACILITY, THE MINIMUM HEIGHT TO BOTTOM OF THE SIGN OR SIGN ASSEMBLY SHALL BE 7'.

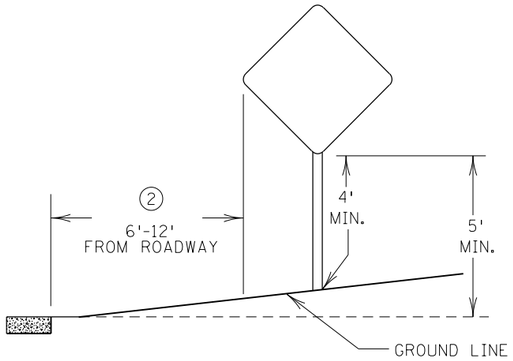
② 6' - 12' FROM EDGE OF ROADWAY, MUST BE A MINIMUM OF 6' FROM EDGE OF PAVED SHOULDER (WHEN PRESENT).

③ IF GROUND MOUNTED TEMPORARY SIGN OR SIGN ASSEMBLY IS PLACED ON 2-1/2" SQUARE TUBE RISER POST(S), THE MINIMUM CLEARANCE FROM THE GROUND LINE TO THE BOTTOM OF THE LOWEST SIGN ON THE ASSEMBLY SHALL BE 7', OR AS SHOWN IN DETAIL, WHICHEVER IS GREATER.

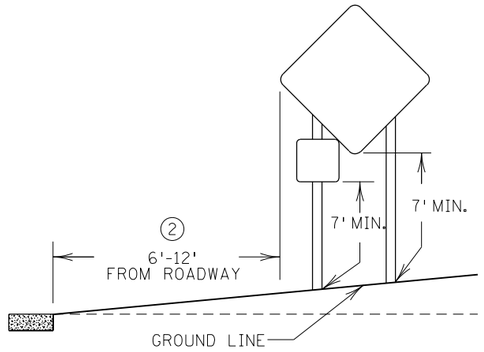
④ 5' MINIMUM IN RURAL. 7' MINIMUM IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS.

⑤ WHEN MULTIPLE GROUND MOUNTED SIGN STRUCTURES ARE PLACED ADJACENT TO EACH OTHER THERE SHOULD BE NO MORE THAN 2 POSTS WITHIN 84" OF EACH OTHER. WHEN THIS SPACING CAN NOT BE MAINTAINED, THEN SIGN STRUCTURES SHALL BE OFFSET, AND STAGGERED WITH A MINIMUM OF 4' BETWEEN SIGN STRUCTURES BOTH LATERALLY AND LONGITUDINALLY. EXAMPLE SHOWS DETOUR SIGNAGE, BUT THIS REQUIREMENT APPLIES TO ALL SIGNAGE.

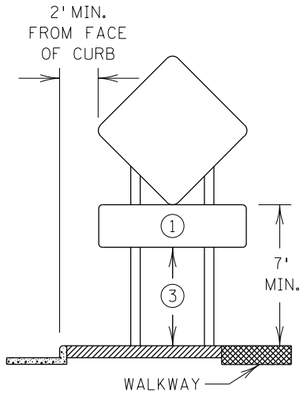
⑥ INPLACE AND/OR OTHER CONSTRUCTION SIGNING.



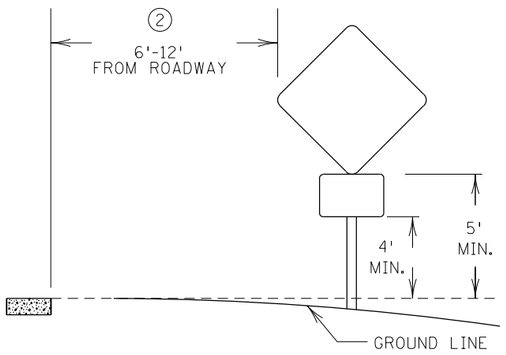
TYPICAL RURAL DESIGN
AND 2" RISER POST



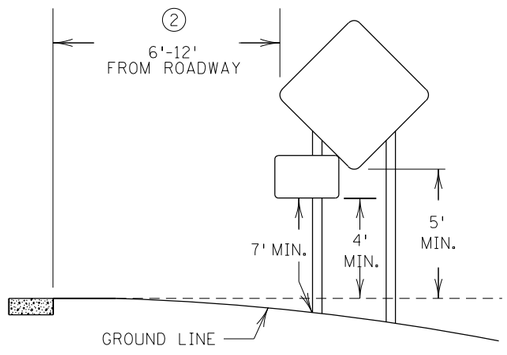
TYPICAL RURAL DESIGN WITH SUPPLEMENTAL
PLAQUE AND 2-1/2" RISER POST



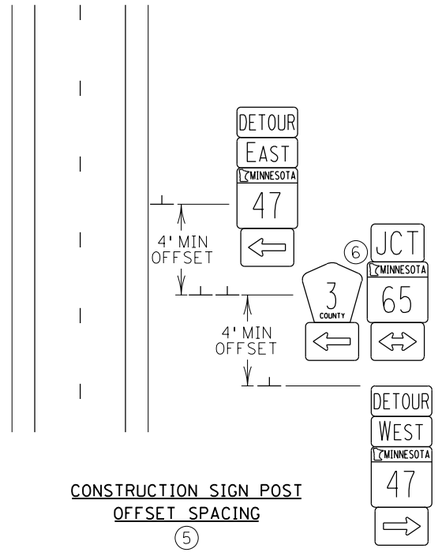
BUSINESS,COMMERCIAL,
OR RESIDENTIAL AREA



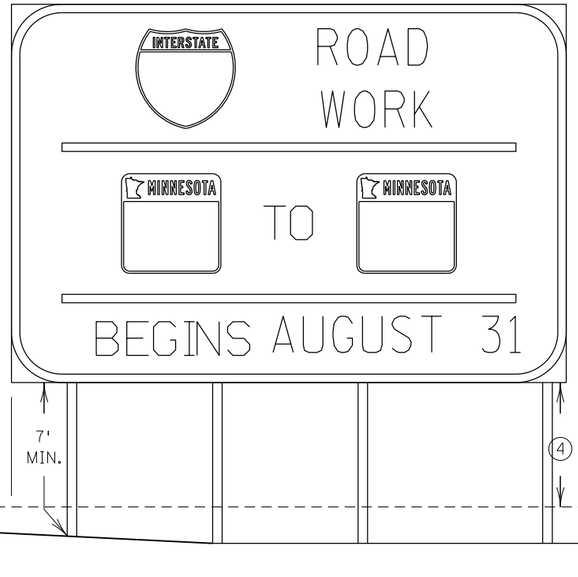
TYPICAL RURAL DESIGN WITH SUPPLEMENTAL
PLAQUE AND 2" RISER POST



TYPICAL RURAL DESIGN
2-1/2" RISER POST



CONSTRUCTION SIGN POST
OFFSET SPACING
⑤



TYPICAL G20-X2 DESIGN

TEMPORARY SQUARE TUBE GROUND MOUNTED SIGN PLACEMENT

PUBLISHED BY OTE 03/15/2021

NOT TO SCALE

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

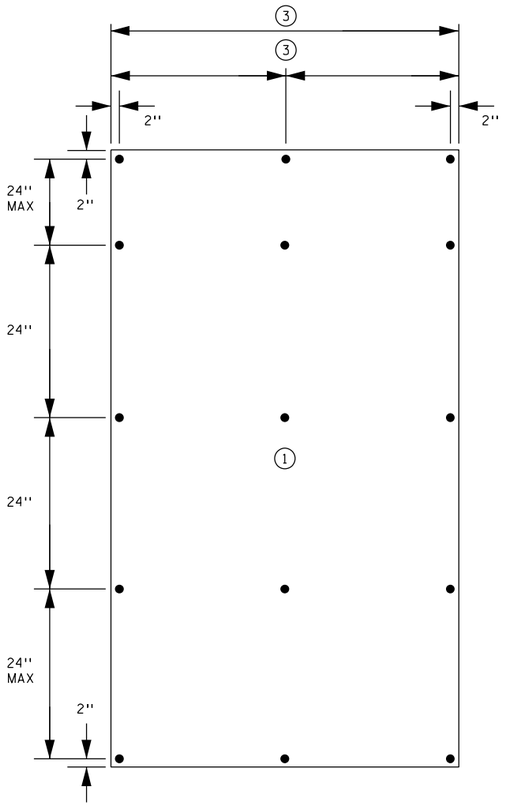
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DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC6 OF TC36

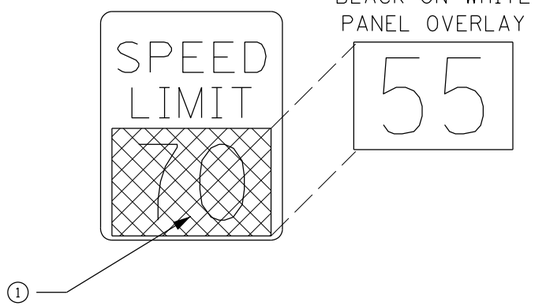
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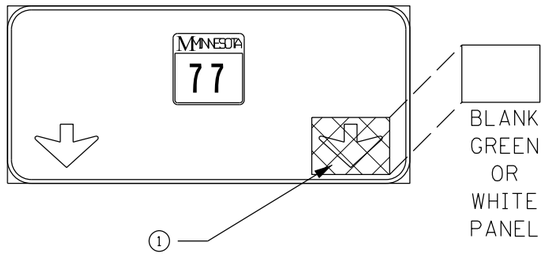
FASTENER SPACING DETAIL
HORIZONTAL PLACEMENT



R2-1

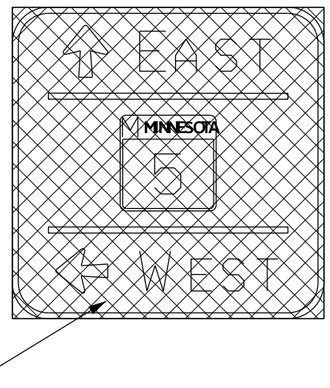
BLACK ON WHITE PANEL OVERLAY



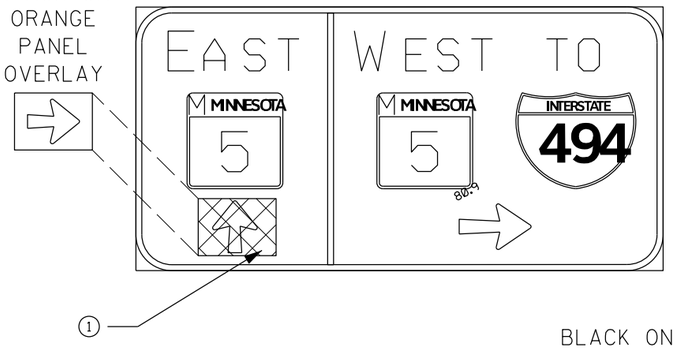


BLANK GREEN OR WHITE PANEL

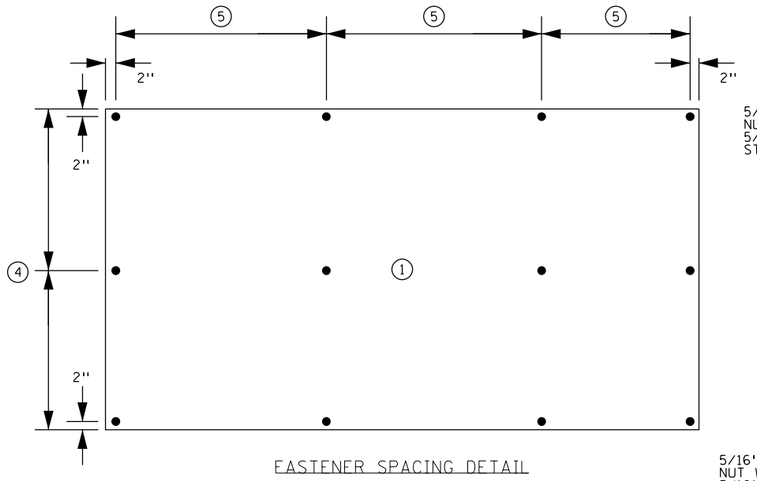
BLANK GREEN PANEL



BLACK ON ORANGE PANEL OVERLAY

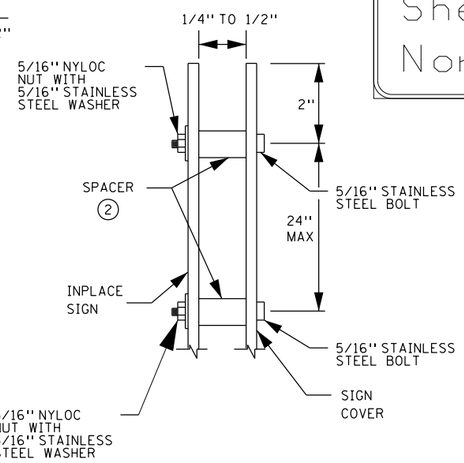


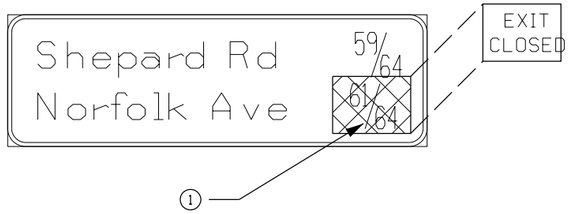
BLACK ON ORANGE PANEL OVERLAY



FASTENER SPACING DETAIL
VERTICAL PLACEMENT

SPACER DETAIL





GENERAL NOTES:

1. SIGN COVER PANELS ARE USED TO COVER AN ENTIRE INPLACE SIGN PANEL OR A PORTION THEREOF TO REMOVE OR MODIFY THE SIGN MESSAGE. THEY HAVE NO ADDITIONAL MESSAGE PRINTED ON THEM. SIGN COVER PANELS SHALL BE MADE OF A RIGID MATERIAL (SHEET ALUMINUM, PLYWOOD, CORRUGATED PLASTIC, OR OTHER MATERIAL AS APPROVED BY THE ENGINEER). SIGN COVER PANELS SHALL BE THE SAME COLOR AS THE BACKGROUND COLOR OF THE INPLACE SIGN PANEL AND SHALL COVER THE ENTIRE SIGN PANEL OR MESSAGE ELEMENT.
2. SIGN PANEL OVERLAYS ARE USED TO MODIFY THE MESSAGE OF AN INPLACE SIGN PANEL. THEY INCLUDE A SIGN MESSAGE. SIGN PANEL OVERLAYS SHALL BE MADE OF SHEET ALUMINUM WITH THE APPROPRIATE SHEETING MATERIAL AS SPECIFIED ON THE MNDOT SHEETING FOR RIGID PERMANENT SIGNS, DELINEATORS, AND MARKERS APL OR THE MNDOT SHEETING FOR RIGID TEMPORARY WORK ZONE SIGNS APL. SIGN PANEL OVERLAY MESSAGES SHALL BE BLACK ON FLUORESCENT ORANGE, EXCEPT ON REGULATORY SIGNS WHICH SHALL BE THE PROPER COLOR ON A WHITE BACKGROUND. THE MESSAGE SHALL FOLLOW THE REQUIREMENTS OF THE MNDOT STANDARD SIGNS AND MARKINGS MANUAL OR THE FHWA STANDARD HIGHWAY SIGNS MANUAL (AND SUPPLEMENTS). THE SIGN PANEL OVERLAY SHALL FULLY COVER THE MESSAGE ELEMENT(S) BEING MODIFIED.
3. MINIMIZE DAMAGE TO THE INPLACE SIGN PANEL. DO NOT APPLY TAPE TO THE INPLACE SIGN SHEETING.
4. SPACERS SHALL BE A MATERIAL THAT WILL NOT HARM THE INPLACE SIGN SHEETING FACE (SUCH AS PLASTIC OR RUBBER).
5. ATTACH SIGN COVER PANEL OR PANEL OVERLAY USING HARDWARE SHOWN IN THE SPACER DETAIL.
6. IF SHEET METAL SCREWS ARE USED TO PLACE CORRUGATED PLASTIC AS A SIGN COVER PANEL, PLACE FENDER WASHERS BETWEEN THE SCREW HEADS AND THE CORRUGATED PLASTIC.
7. REMOVE ALL COVERING MATERIAL, MOUNTING HARDWARE, AND FASTENERS WHEN SIGN COVER PANEL OR PANEL OVERLAY IS REMOVED.
8. NO HANDLE OR OTHER LIFTING DEVICE SHALL BE LEFT ATTACHED TO ANY SIGN COVER PANEL AFTER PLACEMENT.

SPECIFIC NOTES:

① THE SIGN COVER PANEL OR PANEL OVERLAY SHALL FULLY COVER THE MESSAGE BEING COVERED OR MODIFIED.
② PLACE SIGN COVER PANELS AND PANEL OVERLAYS WITH SPACERS THAT PROVIDE A SPACING OF 1/4 IN TO 1/2 IN BETWEEN THE COVER MATERIAL AND THE INPLACE SIGN. THE SPACERS SHALL HAVE AN OUTSIDE DIAMETER BETWEEN 3/8 IN TO 7/8 IN. EACH FASTENER REQUIRES A SPACER.
③ IF THE SIGN COVER PANEL OR PANEL OVERLAY IS GREATER THAN 48 IN WIDE, THE FASTENER SPACING SHALL BE NO GREATER THAN 24 IN. IF THE SIGN COVER PANEL OR PANEL OVERLAY IS LESS THAN 24 IN WIDE, DO NOT PLACE A CENTER FASTENER (UNLESS REQUIRED BY SPECIFIC NOTE ④).
④ VERTICAL SPACING FOR FASTENERS IS 50% OF THE SIGN COVER PANEL OR PANEL OVERLAY. IF THE SIGN COVER PANEL OR PANEL OVERLAY IS LESS THAN 24 IN HIGH, DO NOT PLACE A CENTER FASTENER (UNLESS REQUIRED PER SPECIFIC NOTE ⑤).
⑤ HORIZONTAL SPACING FOR FASTENERS SHALL NOT BE LESS THAN 15 IN NOR MORE THAN 24 IN.

ASSEMBLY STEPS

1. DRILL 11/32 IN HOLES ON THE SIGN COVER PANEL OR PANEL OVERLAY IN ACCORDANCE WITH THE FASTENER SPACING DETAILS.
2. ATTACH PLASTIC SPACERS TO SIGN COVER PANEL OR PANEL OVERLAY WITH DOUBLE FACED TAPE, CENTERED BEHIND EACH DRILLED HOLE.
3. POSITION THE COVER OR OVERLAY MATERIAL OVER THE SIGN OR MESSAGE TO BE MODIFIED.
4. DRILL ALL THE OUTSIDE HOLES THROUGH THE INPLACE SIGN PANEL AND ATTACH THE COVER OR OVERLAY MATERIAL WITH APPROPRIATE FASTENERS.
5. DRILL ALL THE INNER HOLES THROUGH THE INPLACE SIGN PANEL AND ATTACH WITH APPROPRIATE FASTENERS.

PUBLISHED BY OTE 01/22/2021

TEMPORARY SIGN COVERING AND MODIFICATION

BOLTON & MENK
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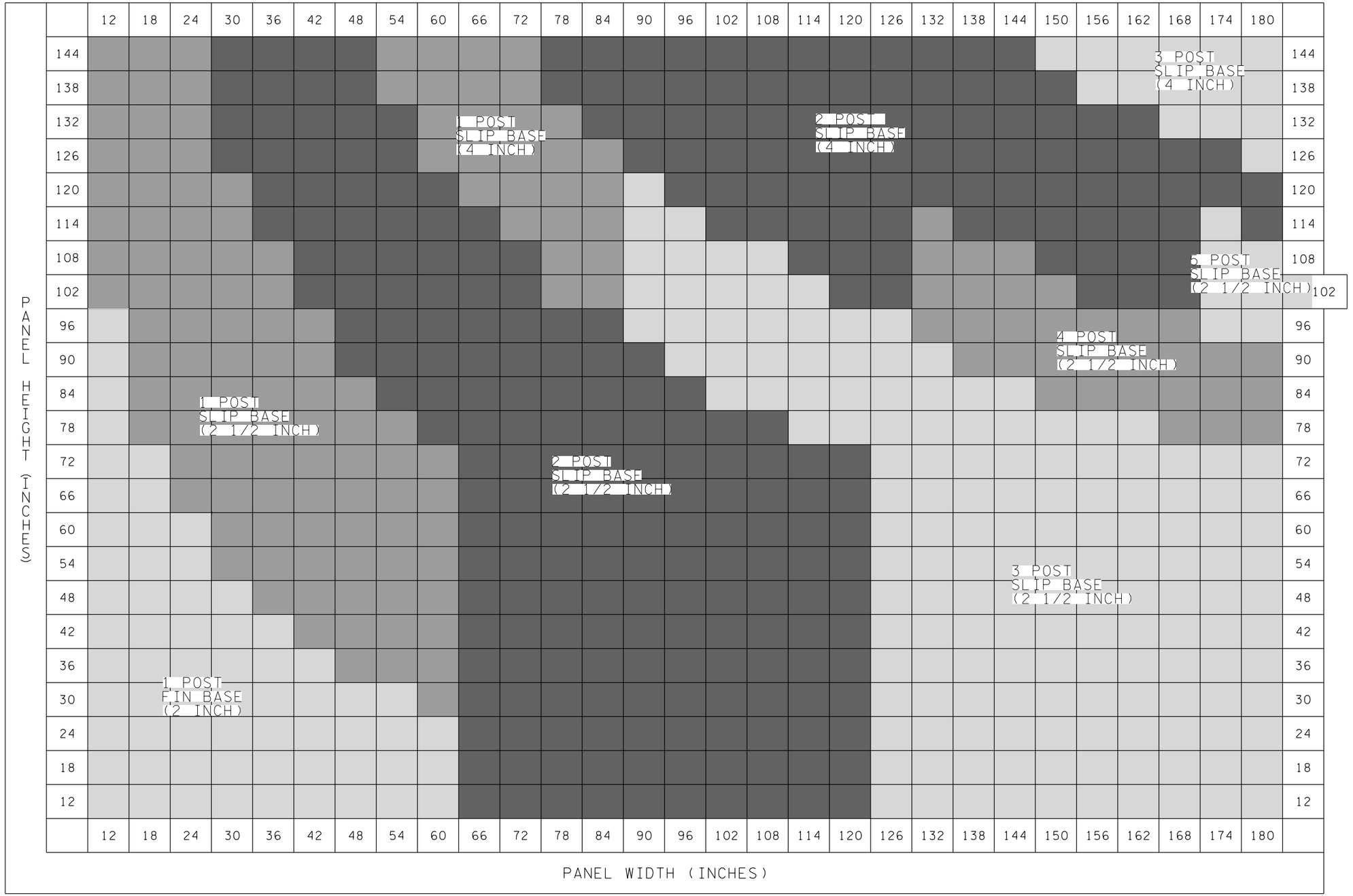
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CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC7 OF TC36

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TEMPORARY SQUARE TUBE GROUND MOUNTED WIND LOADING CHART



SLIP BASE RISER POST 4 INCH, 8 GAUGE
SLIP BASE RISER POST 2-1/2 INCH, 10 GAUGE WITH 2-3/16 INCH INSERT
FIN BASE RISER POST 2 IN, 12 GAUGE

BASED ON 90 MPH WIND LOAD

PUBLISHED BY OTE 03/15/2021

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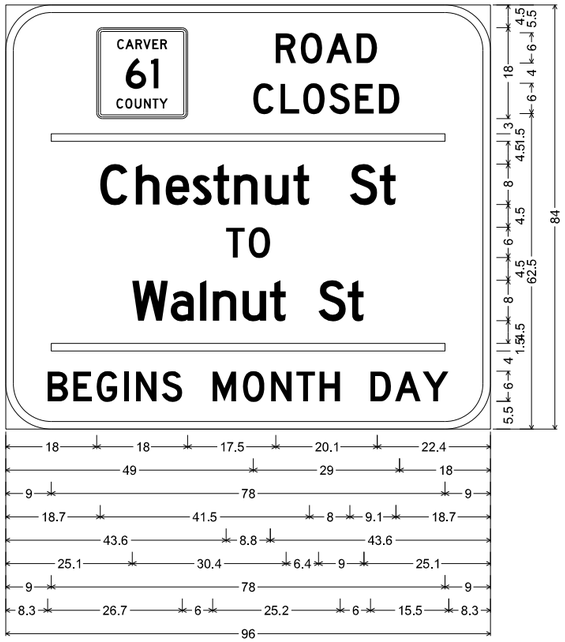
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

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DRAWN	ABM
CHECKED	MSL

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STAGING & TRAFFIC CONTROL PLAN

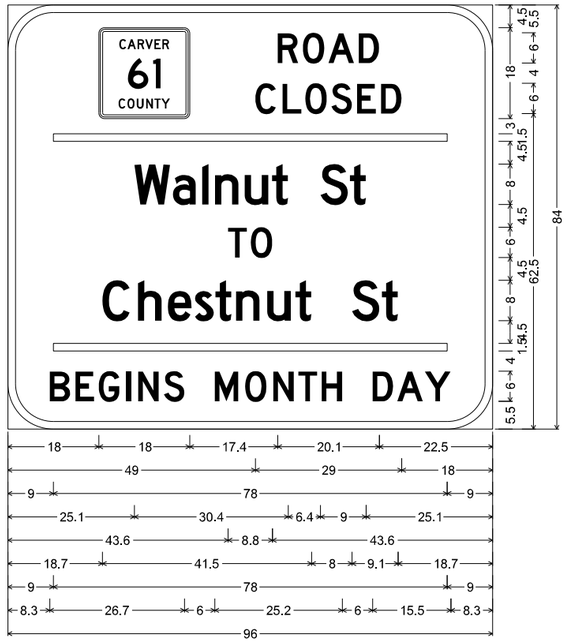
SHEET TC8 OF TC36

WZ-1



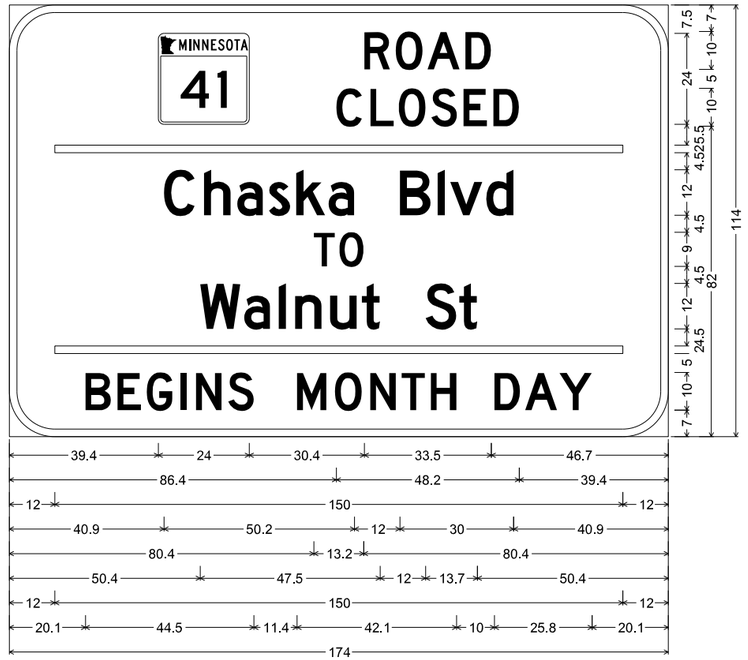
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"Walnut St", D 2K 80% spacing; "BEGINS", D 2K;
"MONTH DAY", D 2K;

WZ-2



9.0" Radius, 1.5" Border, Black on Orange;
"ROAD", D 2K; "CLOSED", D 2K; "Walnut St", D 2K 80% spacing;
"TO", D 2K; "Chestnut St", D 2K; "BEGINS", D 2K;
"MONTH DAY", D 2K;

WZ-3



12.0" Radius, 2.0" Border, Black on Orange;
State Highway 41 M1-5M; "ROAD", D 2K; "CLOSED", D 2K; "Chaska Blvd", D 2K;
"TO", D 2K; "Walnut St", D 2K; "BEGINS", D 2K; "MONTH DAY", D 2K;

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN INCHES.

SPECIAL SIGN DETAILS

N.T.S. — NOT TO SCALE

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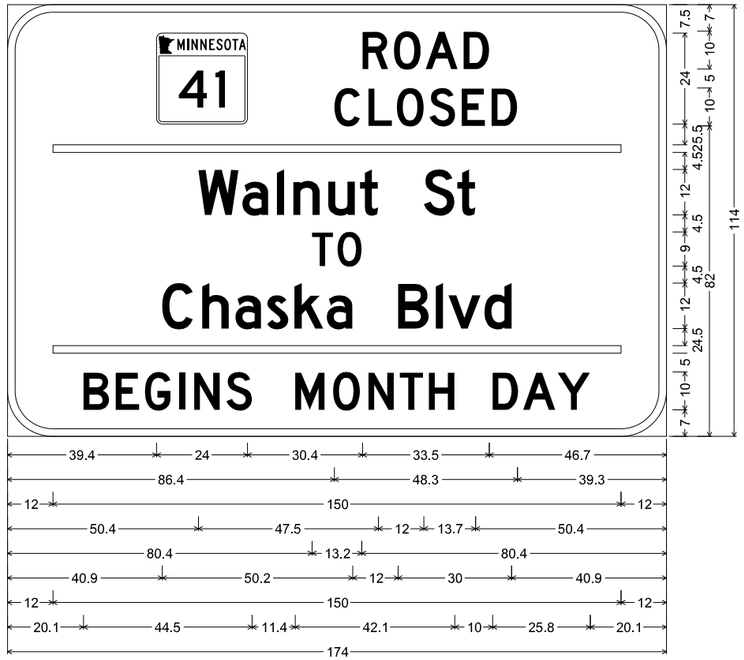
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STAGING & TRAFFIC CONTROL PLAN

SHEET TC9 OF TC36

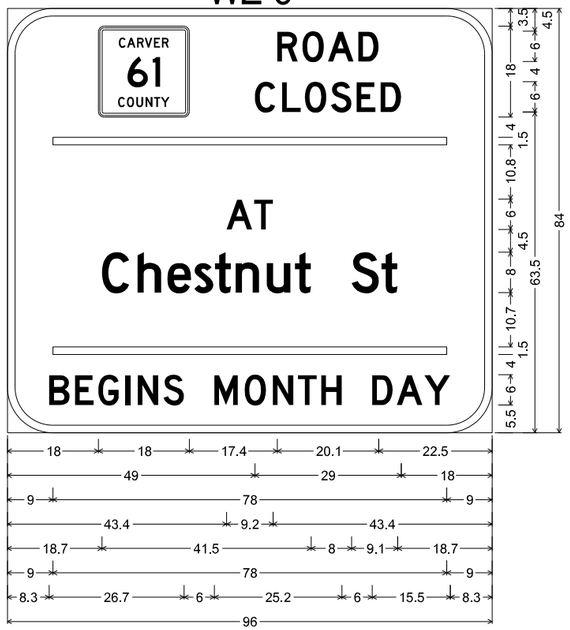
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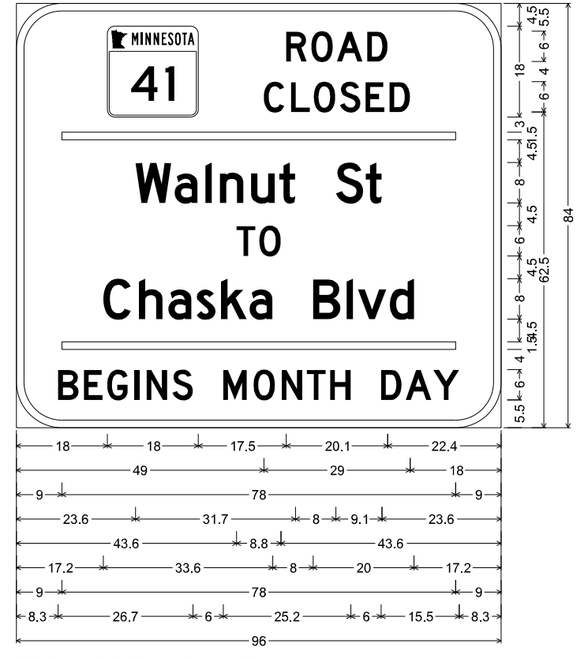
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WZ-5



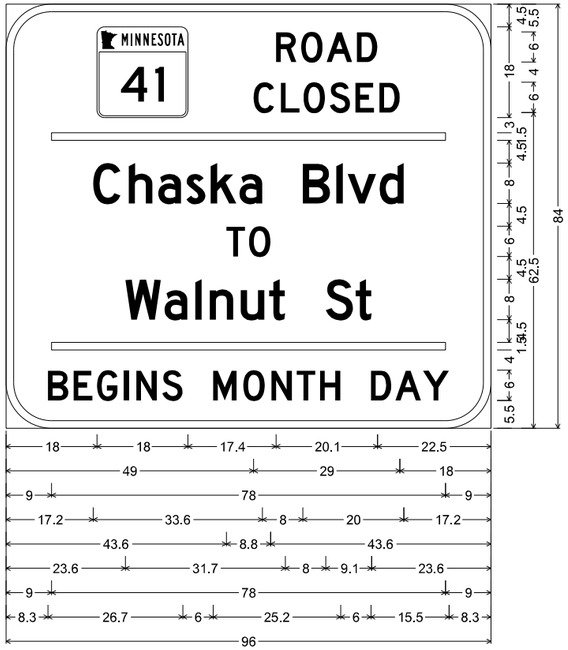
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"BEGINS", D 2K; "MONTH DAY", D 2K;

WZ-6



9.0" Radius, 1.5" Border, Black on Orange;
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WZ-7



9.0" Radius, 1.5" Border, Black on Orange;
State Highway 41 M1-5M; "ROAD", D 2K; "CLOSED", D 2K;
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"BEGINS", D 2K; "MONTH DAY", D 2K;

GENERAL NOTES:
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SPECIAL SIGN DETAILS

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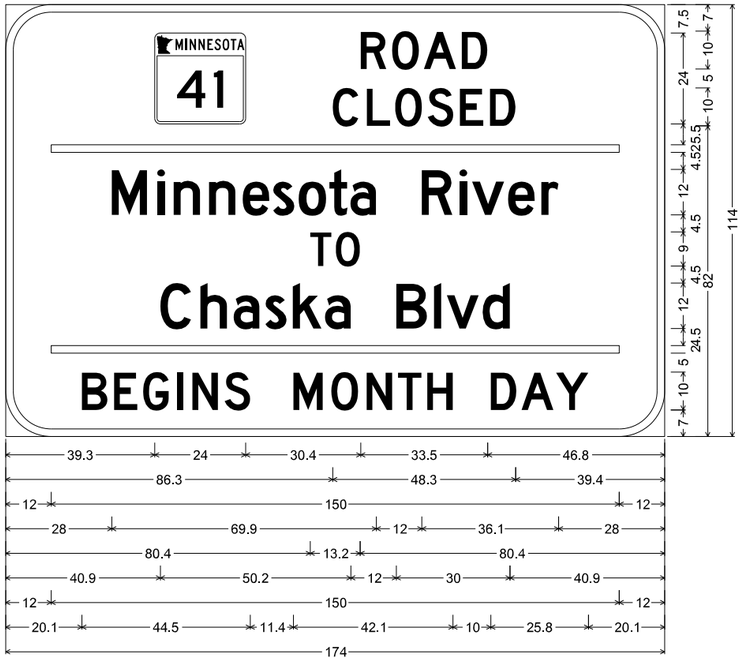
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STAGING & TRAFFIC CONTROL PLAN

SHEET TC10 OF TC36

NOT TO SCALE
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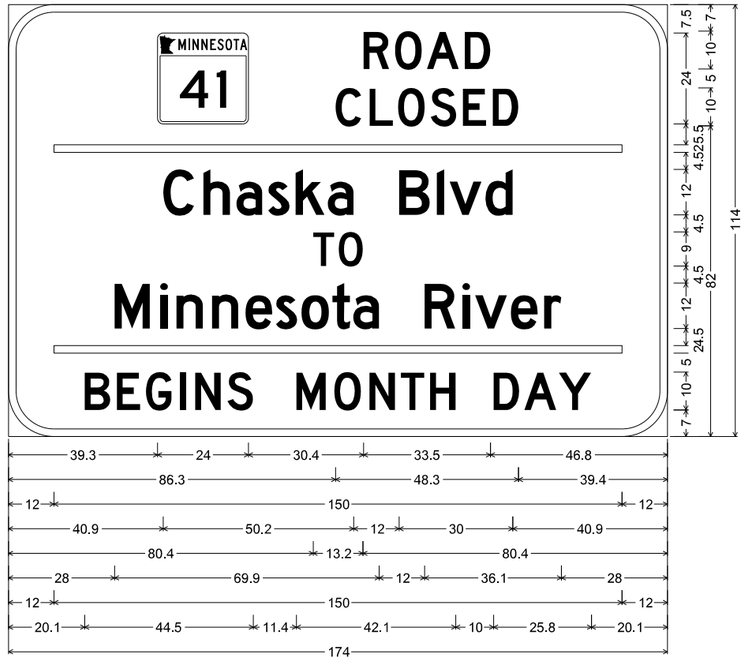
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WZ-8



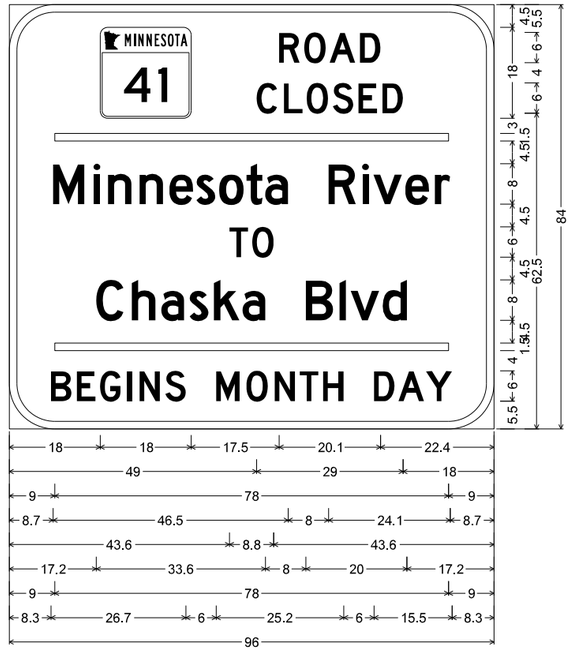
12.0" Radius, 2.0" Border, Black on Orange;
State Highway 41 M1-5M; "ROAD", D 2K; "CLOSED", D 2K; "Minnesota River", D 2K;
"TO", D 2K; "Chaska Blvd", D 2K; "BEGINS", D 2K; "MONTH DAY", D 2K;

WZ-9



12.0" Radius, 2.0" Border, Black on Orange;
State Highway 41 M1-5M; "ROAD", D 2K; "CLOSED", D 2K; "Chaska Blvd", D 2K;
"TO", D 2K; "Minnesota River", D 2K; "BEGINS", D 2K; "MONTH DAY", D 2K;

WZ-10



9.0" Radius, 1.5" Border, Black on Orange;
State Highway 41 M1-5M; "ROAD", D 2K; "CLOSED", D 2K;
"Minnesota River", D 2K; "TO", D 2K; "Chaska Blvd", D 2K;
"BEGINS", D 2K; "MONTH DAY", D 2K;

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN INCHES.

SPECIAL SIGN DETAILS

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

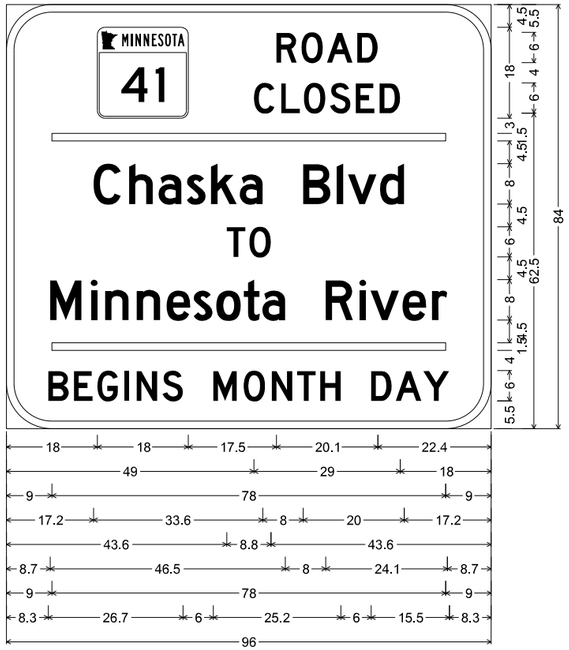
SHEET TC11 OF TC36

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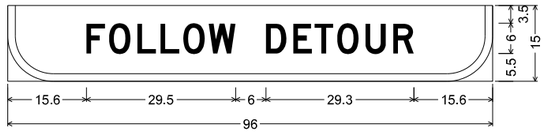
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WZ-11



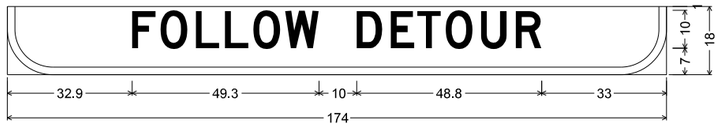
9.0" Radius, 1.5" Border, Black on Orange;
State Highway 41 M1-5M; "ROAD", D 2K; "CLOSED", D 2K;
"Chaska Blvd", D 2K; "TO", D 2K; "Minnesota River", D 2K;
"BEGINS", D 2K; "MONTH DAY", D 2K;

WZ-12



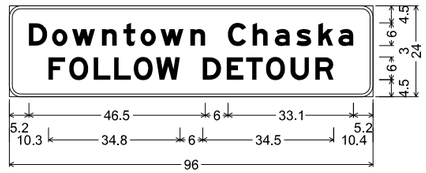
9.0" Radius, 1.5" Border, Black on Orange;
"FOLLOW DETOUR", D 2K;

WZ-13



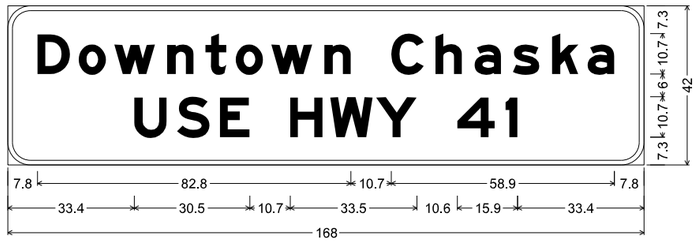
12.0" Radius, 2.0" Border, Black on Orange;
"FOLLOW DETOUR", D 2K;

WZ-14



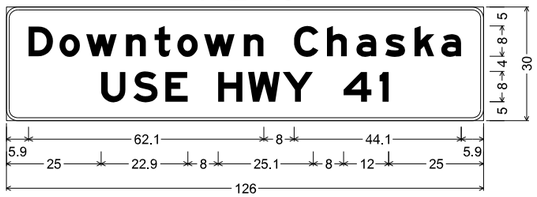
3.0" Radius, 0.8" Border, Black on Orange;
"Downtown Chaska", E Mod 2K;
"FOLLOW DETOUR", E Mod 2K;

WZ-15



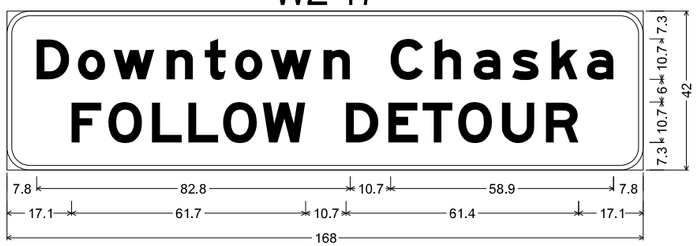
6.0" Radius, 1.3" Border, Black on Orange;
"Downtown Chaska", E Mod 2K; "USE HWY 41", E Mod 2K;

WZ-16



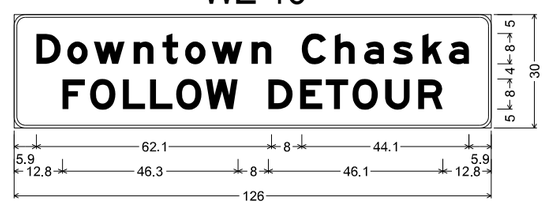
3.0" Radius, 0.8" Border, Black on Orange;
"Downtown Chaska", E Mod 2K; "USE HWY 41", E Mod 2K;

WZ-17



6.0" Radius, 1.3" Border, Black on Orange;
"Downtown Chaska", E Mod 2K; "FOLLOW DETOUR", E Mod 2K;

WZ-18



3.0" Radius, 0.8" Border, Black on Orange;
"Downtown Chaska", E Mod 2K; "FOLLOW DETOUR", E Mod 2K;

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN INCHES.

SPECIAL SIGN DETAILS

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3/15/2022

BOLTON & MENK
12224 NICOLLET AVENUE
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Email: Burnsville@bolton-menk.com
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REV.	BY	DATE

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Michael S. Larson
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

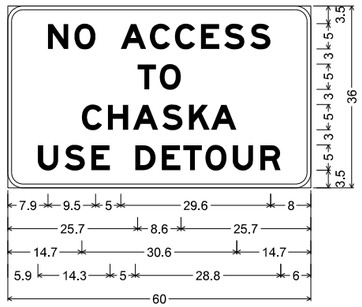
DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC12 OF TC36

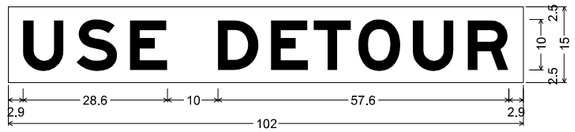
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WZ-19



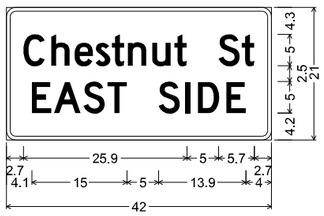
3.0" Radius, 0.8" Border, Black on Orange;
"NO ACCESS", E Mod 2K; "TO", E Mod 2K;
"CHASKA", E Mod 2K;
"USE DETOUR", E Mod 2K;

WZ-20



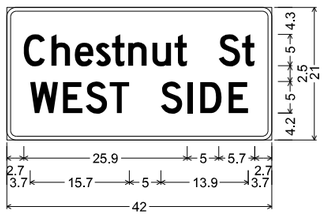
No border, Black on Orange;
"USE DETOUR", E Mod 2K;

WZ-21



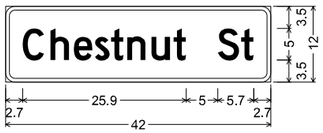
1.5" Radius, 0.6" Border, Black on Orange;
"Chestnut St", D 2K;
"EAST SIDE", D 2K;

WZ-22



1.5" Radius, 0.6" Border, Black on Orange;
"Chestnut St", D 2K;
"WEST SIDE", D 2K;

WZ-23



1.5" Radius, 0.6" Border, Black on Orange;
"Chestnut St", D 2K;

WZ-24



2.3" Radius, 0.9" Border, 0.6" Indent, Black on Orange;
"LOCAL", D 2K;
"RESIDENT", D 2K;
"ACCESS", D 2K;
"ONLY", D 2K;

WORK ZONE SIGNING				
WZ SIGN	(W" X H")	# OF POSTS	POST SPACING	PANEL
WZ-1	96" X 84"	2	48"	
WZ-2	96" X 84"	2	48"	
WZ-3	174" X 114"	5	42"	
WZ-4	174" X 114"	5	42"	
WZ-5	96" X 84"	2	48"	
WZ-6	96" X 84"	2	48"	
WZ-7	96" X 84"	2	48"	
WZ-8	174" X 114"	5	42"	
WZ-9	174" X 114"	5	42"	
WZ-10	96" X 84"	2	48"	
WZ-11	96" X 84"	2	48"	
WZ-12	96" X 15"			X
WZ-13	174" X 18"			X
WZ-14	96" X 24"	2	48"	
WZ-15	168" X 42"	3	60"	
WZ-16	126" X 30"	3	48"	
WZ-17	168" X 42"	3	60"	
WZ-18	126" X 30"	3	48"	
WZ-19	60" X 36"			X
WZ-20	102" X 15"			X
WZ-21	42" X 21"			X
WZ-22	42" X 21"			X
WZ-23	42" X 12"			X
WZ-24	42" X 36"			X

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN INCHES.

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BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

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Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

N.T.S. TO SCALE

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SPECIAL SIGN DETAILS

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

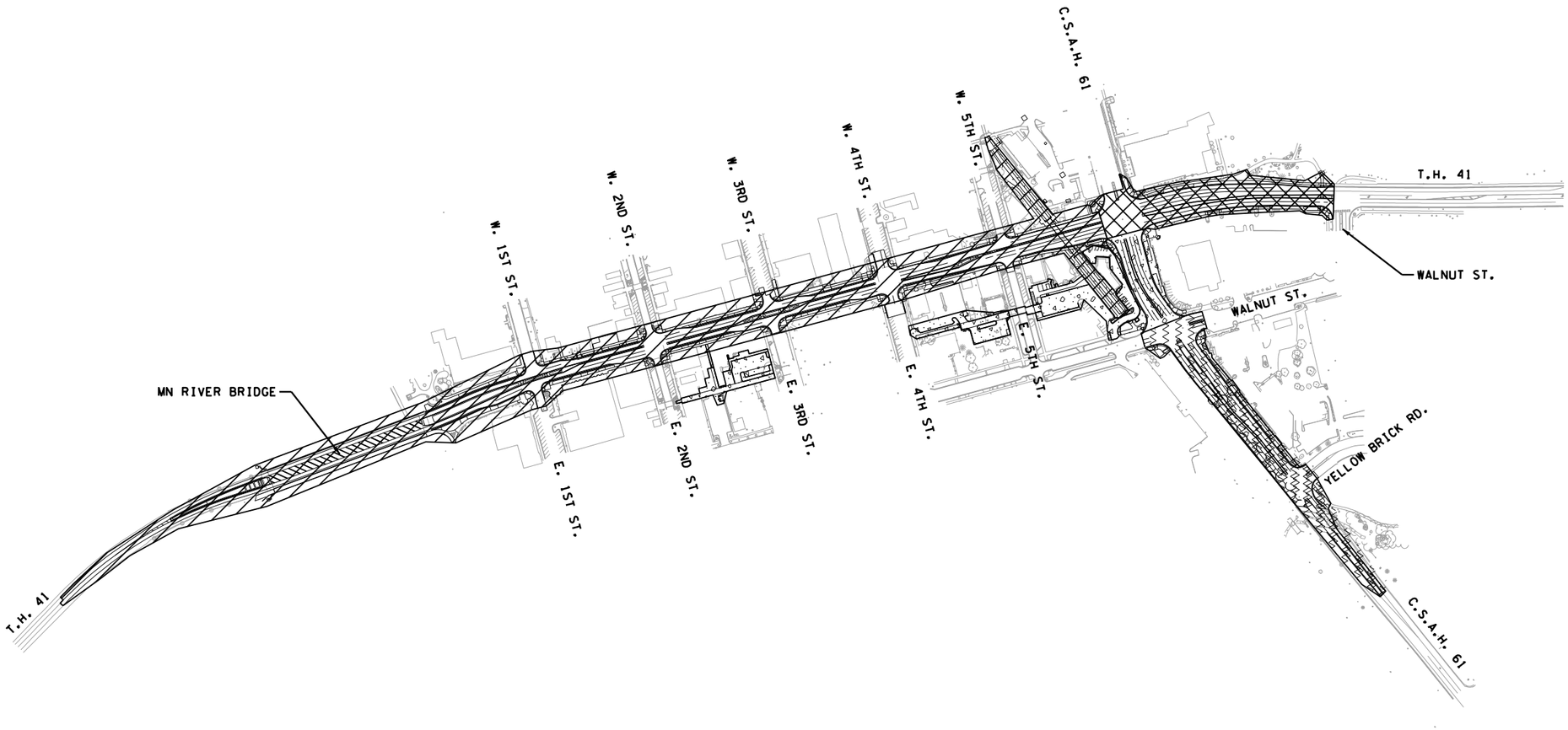
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC13 OF TC36

LEGEND

- STAGE 1A
- STAGE 1B
- STAGE 2A
- STAGE 2B



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BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED MSL
DRAWN ABM
CHECKED MSL

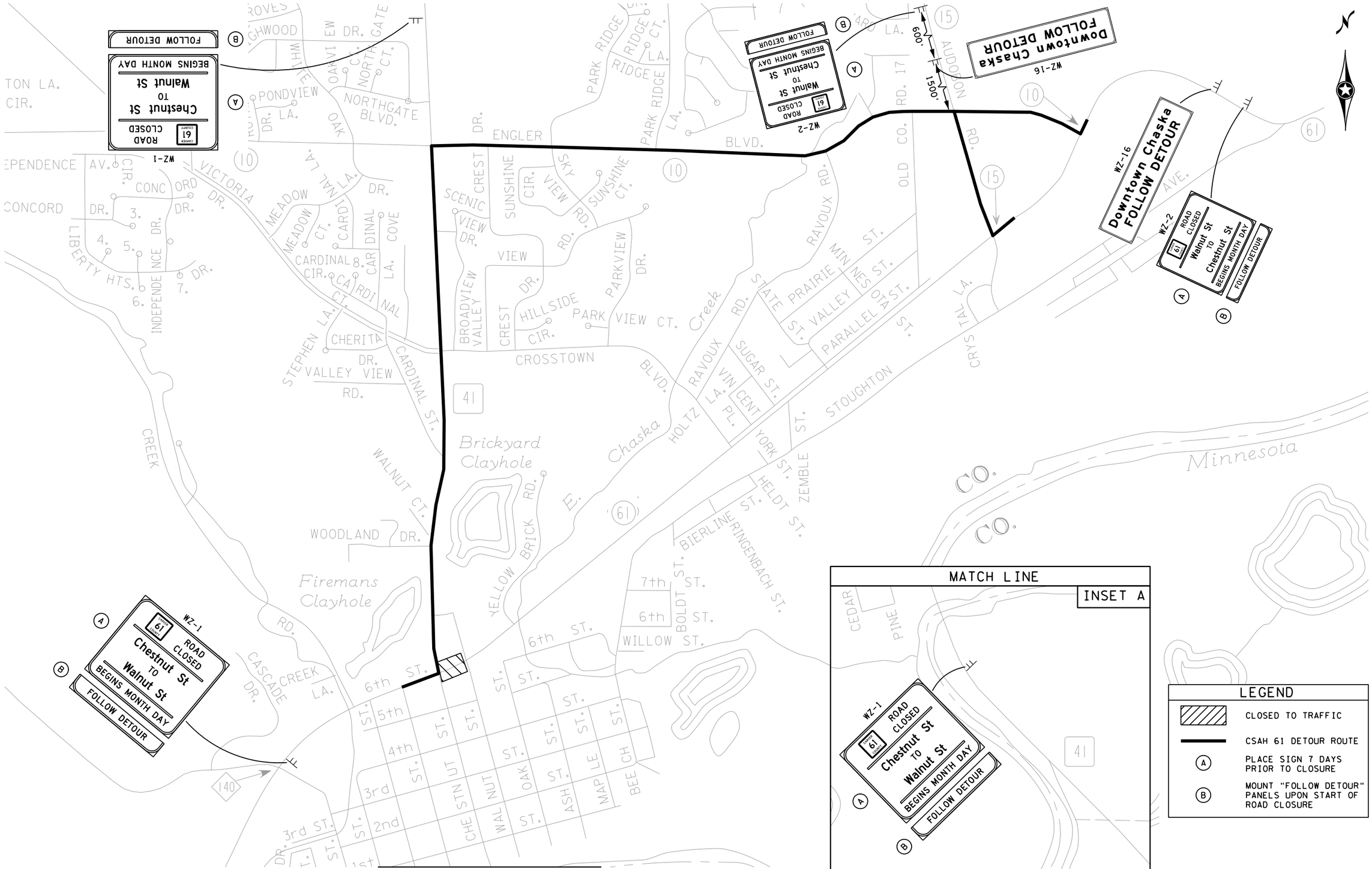
STAGING OVERVIEW

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC14 OF TC36



STAGE 1 ADVANCED SIGNING

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

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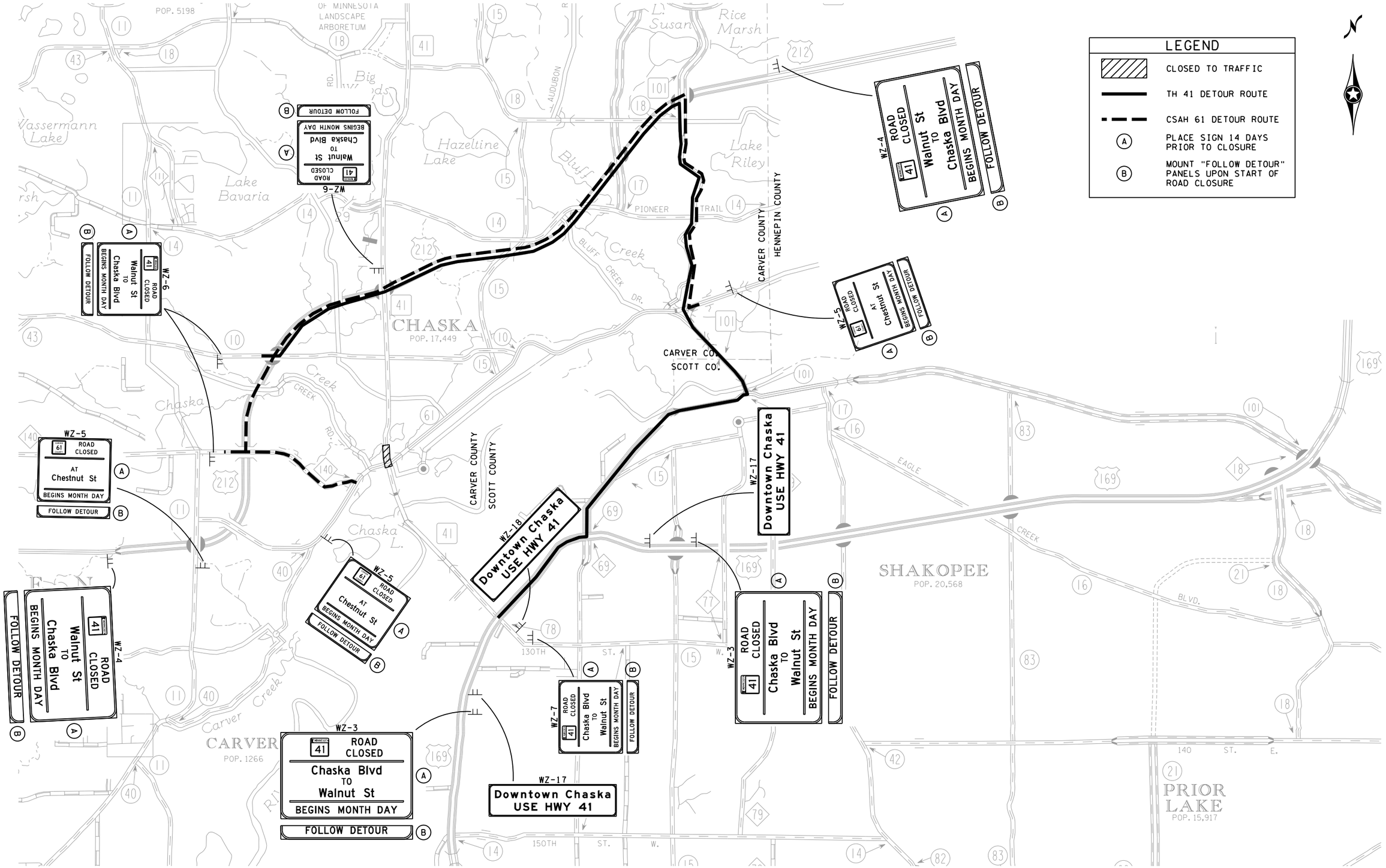
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC15 OF TC36

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SCALE FEET

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12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
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REV.	BY	DATE

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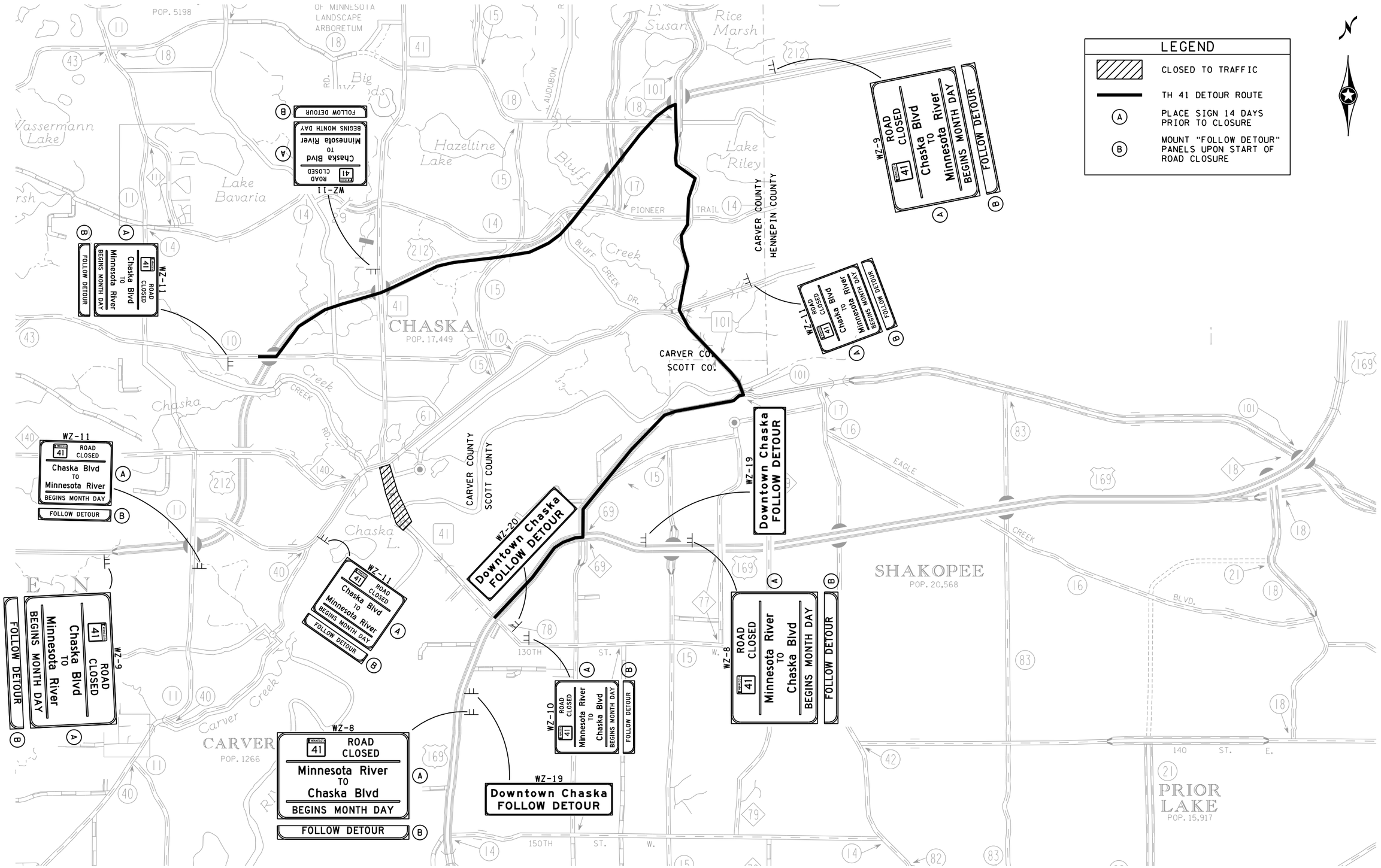
Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED MSL
DRAWN ABM
CHECKED MSL

STAGE 2A ADVANCED SIGNING
S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC16 OF TC36



STAGE 2B ADVANCED SIGNING

DESIGNED	MSL	S.P. 1008-87 (TH 41), S.P. 196-010-017, S.P. 196-010-018, S.P. 196-020-014
DRAWN	ABM	T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
CHECKED	MSL	STAGING & TRAFFIC CONTROL PLAN

SHEET TC17 OF TC36

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

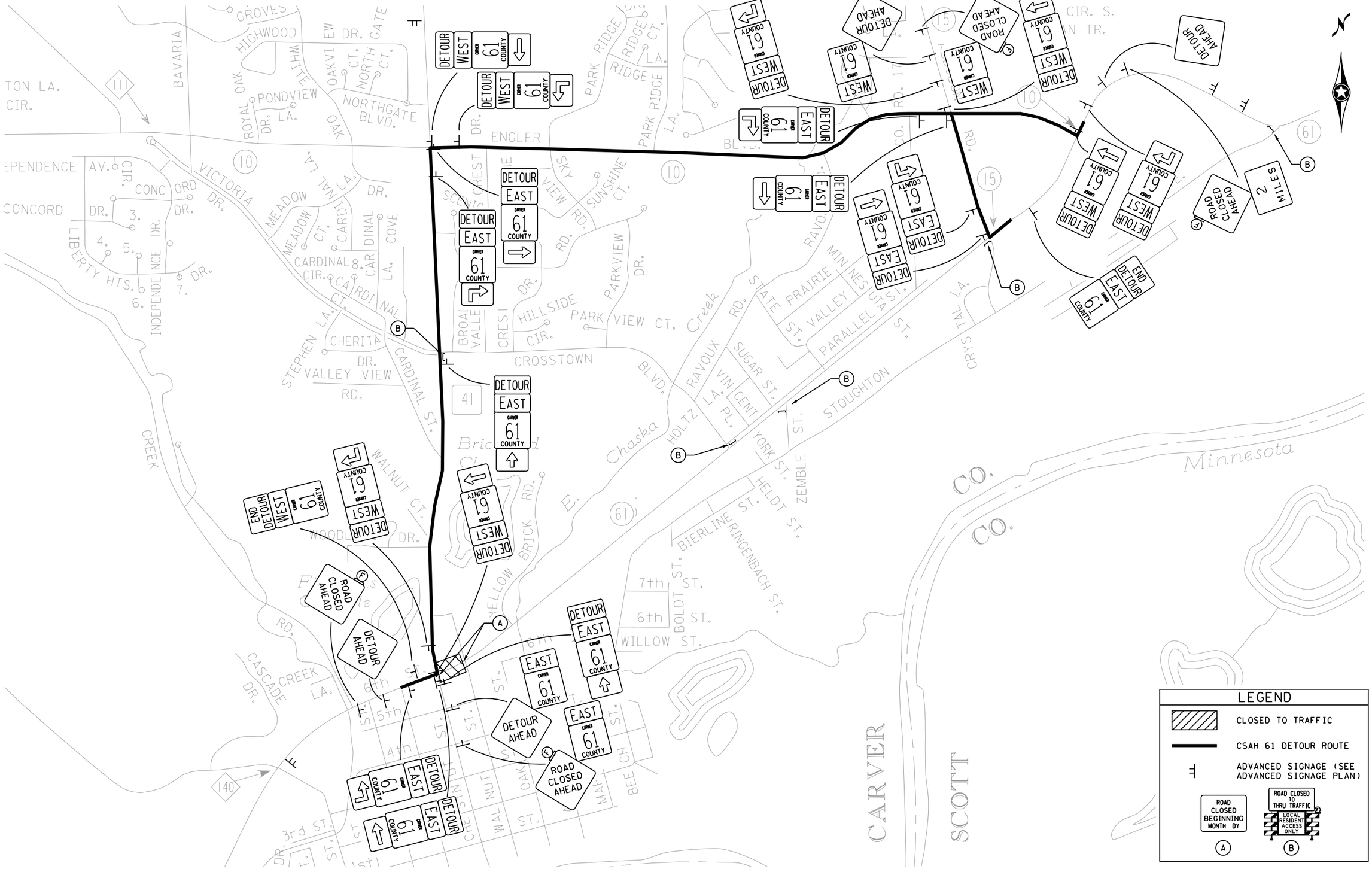
BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

SCALE 0 2500 5000 FEET

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DETOUR PLAN - STAGE 1

0 500 1000
SCALE FEET

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MICHAEL S. LARSON
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DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC18 OF TC36

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03/18/2022

PLAN SHEET LAYOUT					
GENERAL SHEET LAYOUT IDENTIFIER	A	B	C	D	E
STAGE 2A	TC21	TC22	TC23	TC24	TC25
STAGE 2B	-	TC27	TC28		TC29

DETOUR PLAN - STAGE 2 OVERVIEW

SCALE 0 2500 5000 FEET

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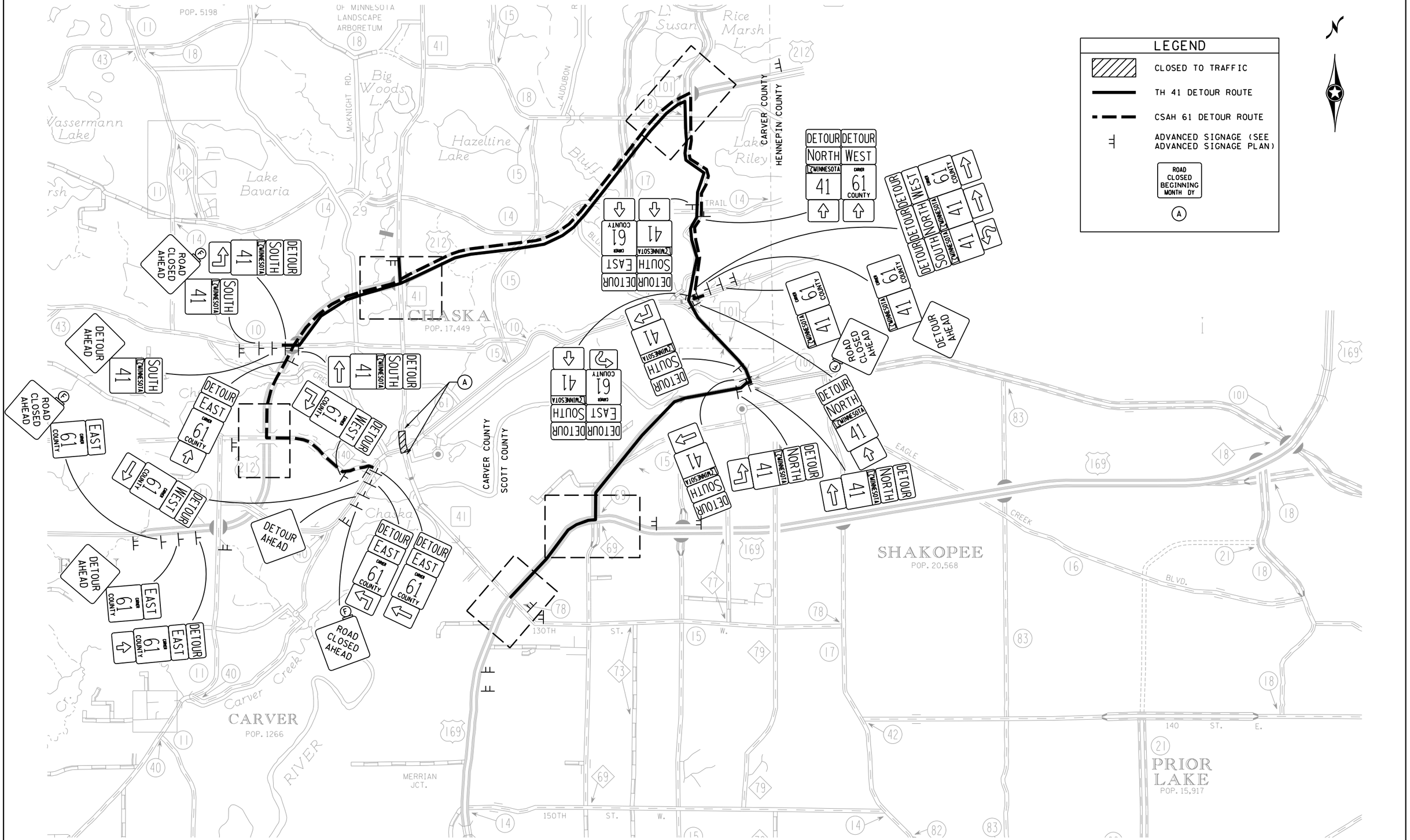
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

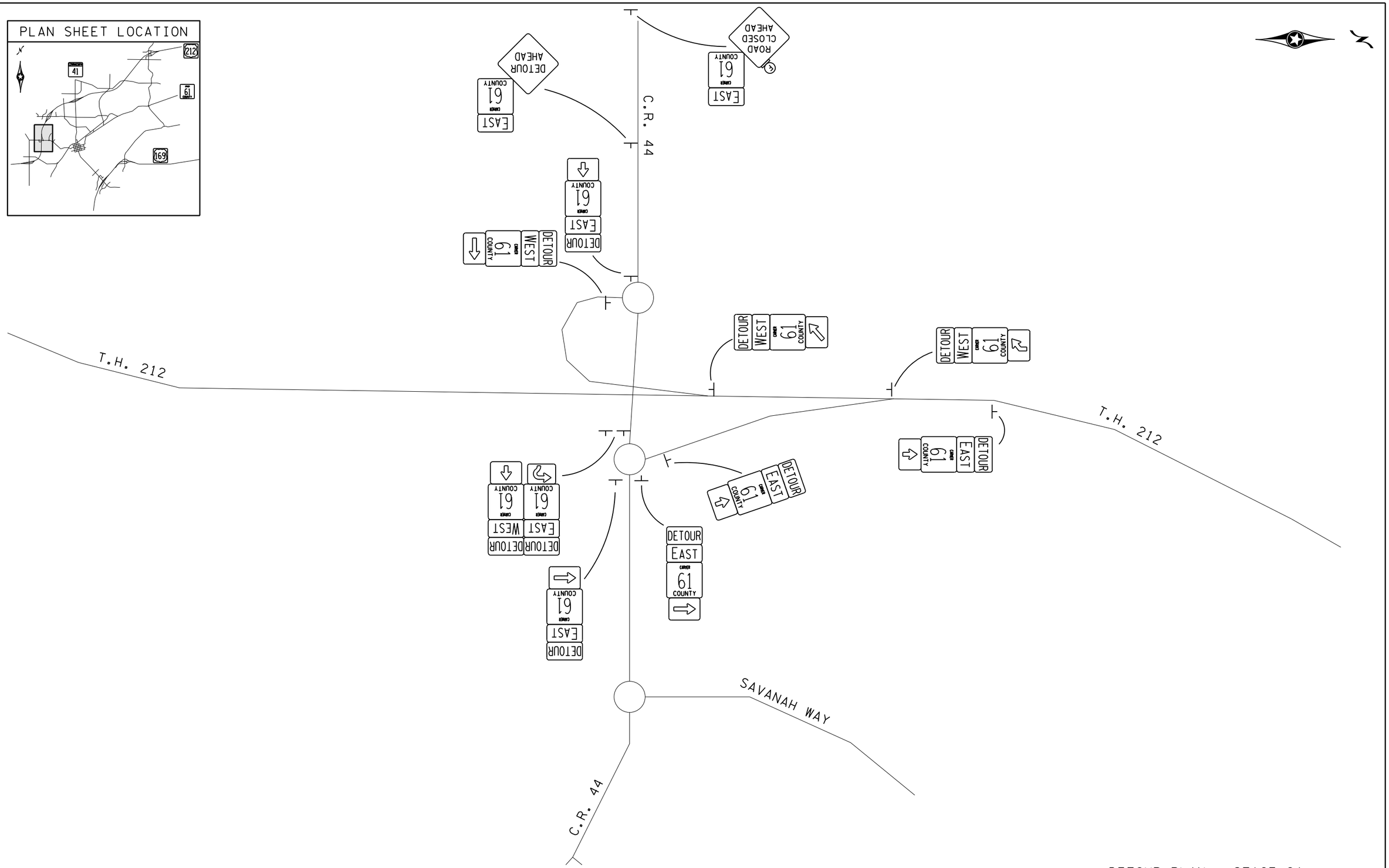
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DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC19 OF TC36

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LEGEND
CLOSED TO TRAFFIC
TH 41 DETOUR ROUTE
CSAH 61 DETOUR ROUTE
ADVANCED SIGNAGE (SEE ADVANCED SIGNAGE PLAN)
ROAD CLOSED BEGINNING MONTH DY
A
N
CHASKA
POP. 17,449
CARVER
POP. 1266
SHAKOPEE
POP. 20,568
PRIOR LAKE
POP. 15,917
CARVER COUNTY
HENNEPIN COUNTY
SCOTT COUNTY
ROAD CLOSED AHEAD
DETOUR AHEAD
DETOUR SOUTH 41 MINNESOTA
DETOUR EAST 61 CSAH COUNTY
DETOUR WEST 61 CSAH COUNTY
DETOUR NORTH 41 MINNESOTA
DETOUR NORTH WEST 41 MINNESOTA CARVER 61 COUNTY
DETOUR SOUTH EAST 41 MINNESOTA CSAH 61 COUNTY
DETOUR SOUTH 41 MINNESOTA
DETOUR NORTH 41 MINNESOTA
DETOUR EAST 61 CSAH COUNTY
DETOUR WEST 61 CSAH COUNTY
DETOUR NORTH WEST 41 MINNESOTA CSAH 61 COUNTY
DETOUR SOUTH EAST 41 MINNESOTA CSAH 61 COUNTY
DETOUR NORTH 41 MINNESOTA
DETOUR SOU



DETOUR PLAN - STAGE 2A

0 250 500
SCALE FEET

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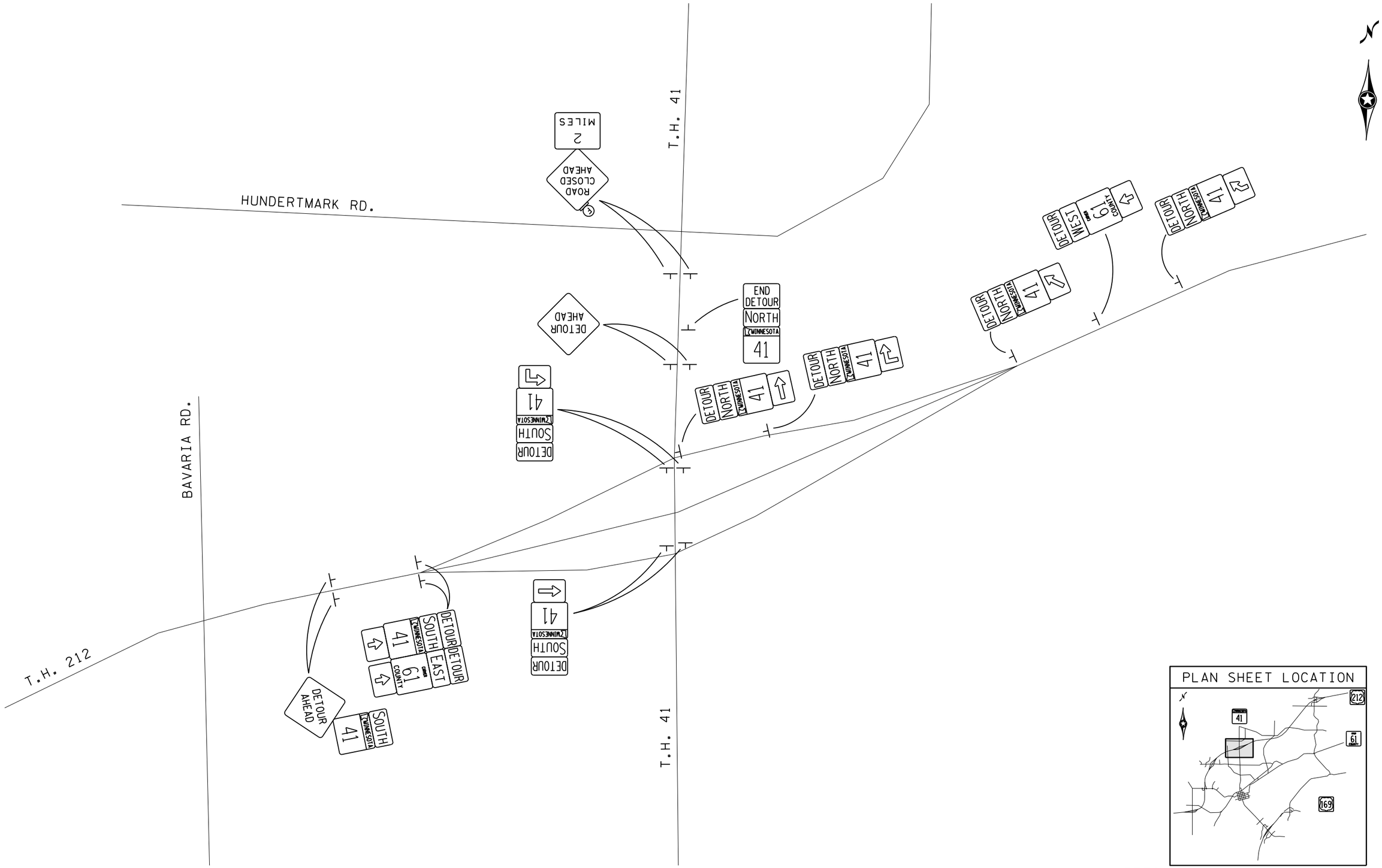
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC21 OF TC36

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PLAN SHEET LOCATION

DETOUR PLAN - STAGE 2A

0 250 500
SCALE FEET

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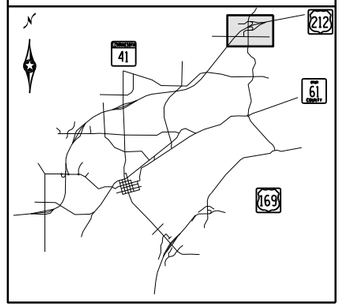
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC22 OF TC36

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PLAN SHEET LOCATION



DETOUR PLAN - STAGE 2A

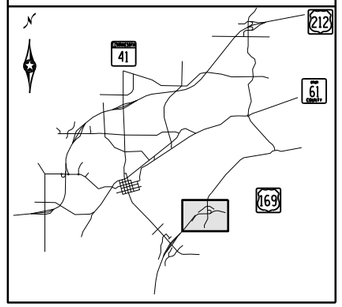
SCALE 0 250 500 FEET	BOLTON & MENK 12224 NICOLLET AVENUE BURNSVILLE, MINNESOTA 55337 Email: Burnsville@bolton-menk.com www.bolton-menk.com	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. MICHAEL S. LARSON LIC. NO. 58850 DATE 03-02-2022
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STAGING & TRAFFIC CONTROL PLAN

SHEET TC23 OF TC36

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PLAN SHEET LOCATION



DETOUR PLAN - STAGE 2A & 2B

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SCALE FEET

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MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

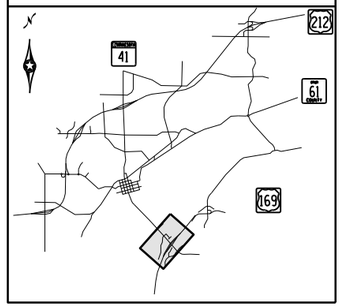
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CHECKED	MSL

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STAGING & TRAFFIC CONTROL PLAN

SHEET TC24 OF TC36

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bmi 3/18/2022

PLAN SHEET LOCATION



U.P.R.R.

T.H. 41

DEM CON DR.

T.H. 169

LOUISVILLE RD.

EMERY WAY

C.S.A.H. 78

Chaska

Chaska
NEXT RIGHT

DETOUR SOUTH MINNESOTA 41

END DETOUR SOUTH MINNESOTA 41

DETOUR SOUTH MINNESOTA 41

DETOUR NORTH MINNESOTA 41

NORTH MINNESOTA 41

DETOUR AHEAD

ROAD CLOSED AHEAD

2 MILE

DETOUR PLAN - STAGE 2A

0 250 500
SCALE FEET

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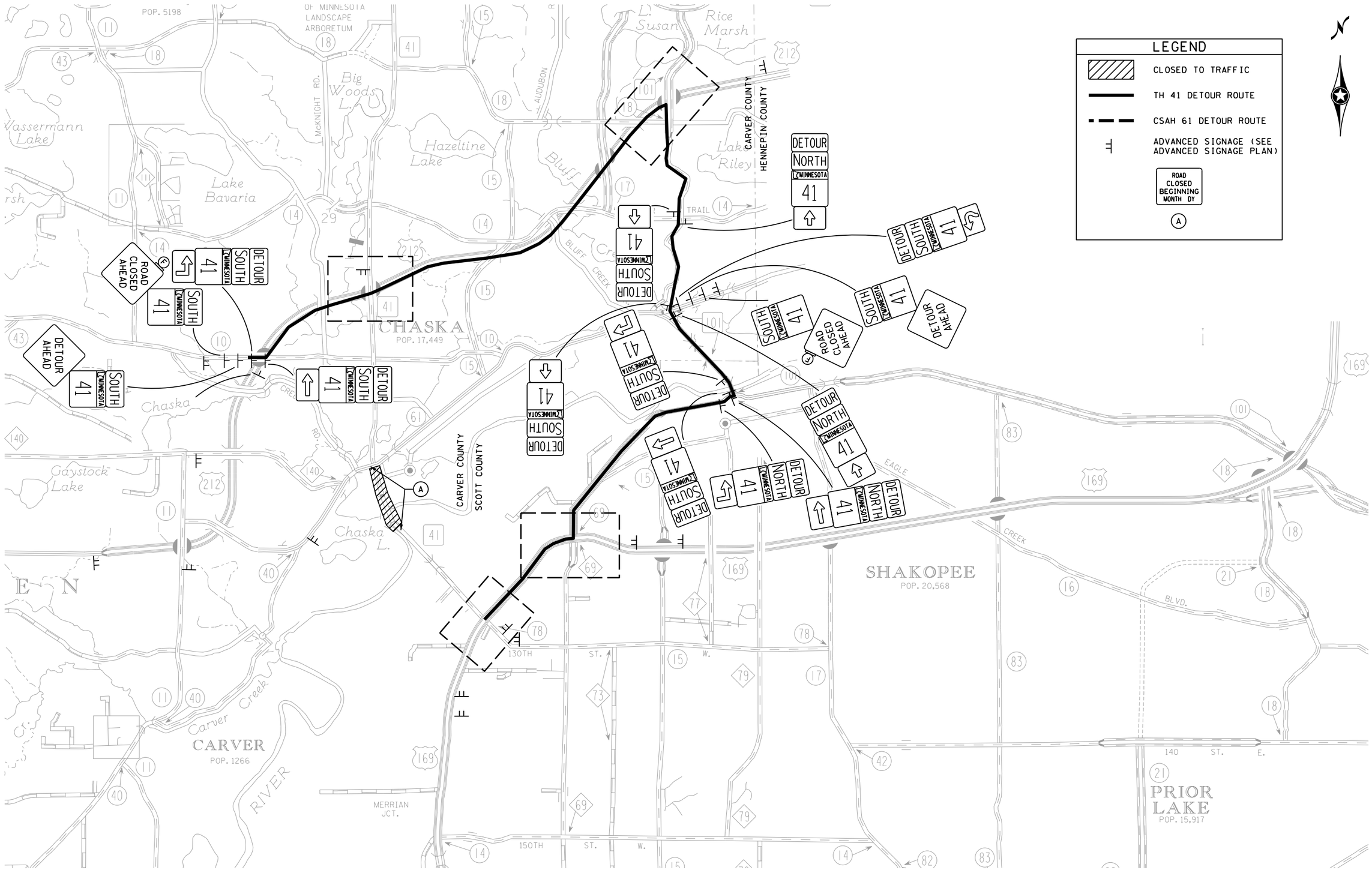
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LIC. NO. 58850 DATE 03-02-2022

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STAGING & TRAFFIC CONTROL PLAN

SHEET TC25 OF TC36

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DETOUR PLANS - STAGE 2B OVERVIEW

SCALE 0 2500 5000 FEET

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Michael S. Larson

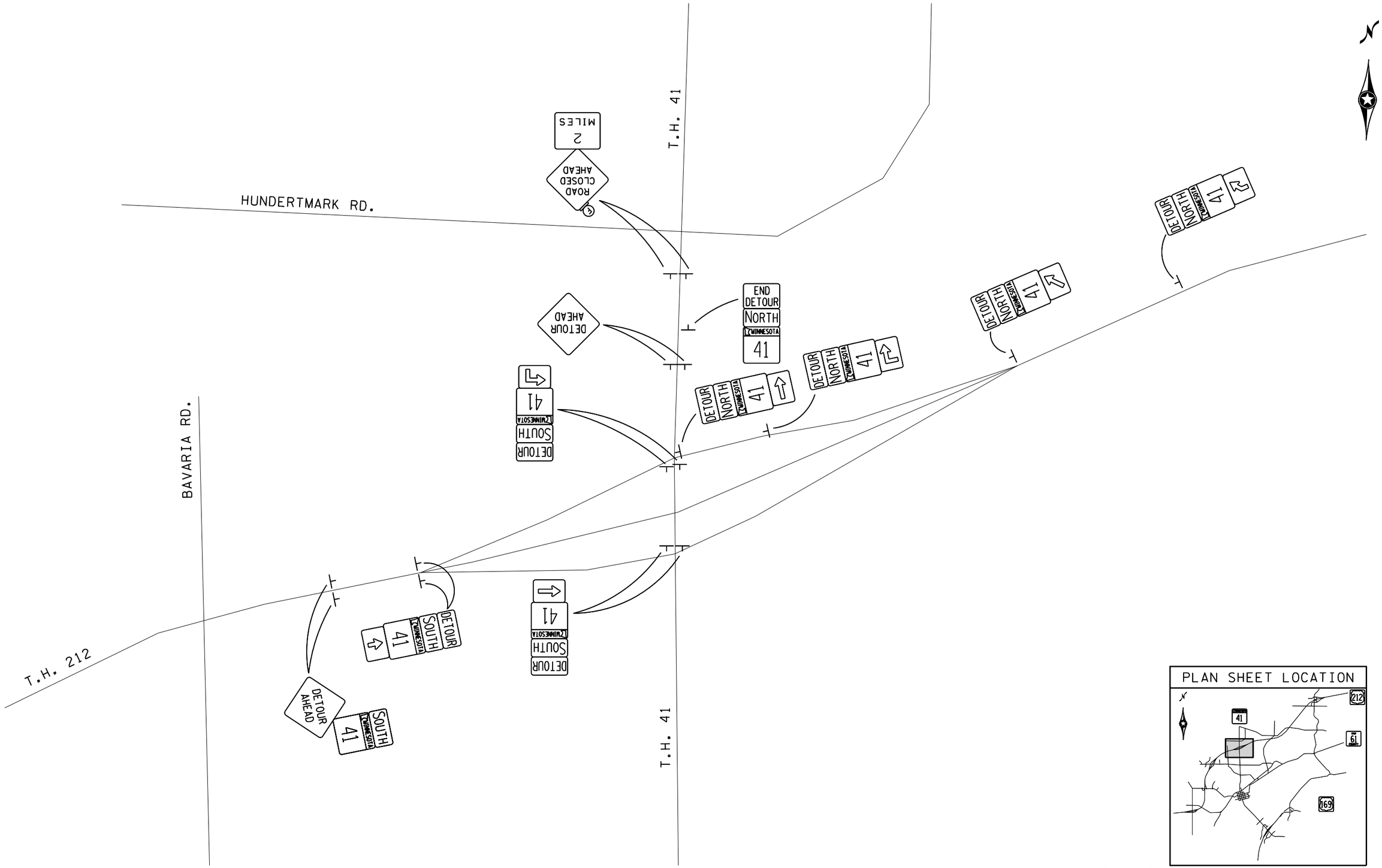
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LIC. NO. 58850 DATE 03-02-2022

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DRAWN	ABM
CHECKED	MSL

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STAGING & TRAFFIC CONTROL PLAN

SHEET TC26 OF TC36

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DETOUR PLAN - STAGE 2A & 2B

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SCALE FEET

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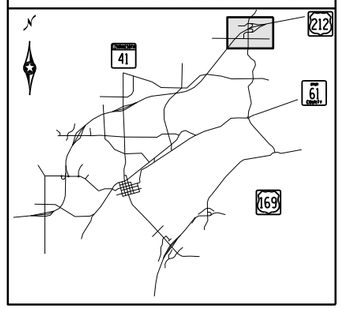
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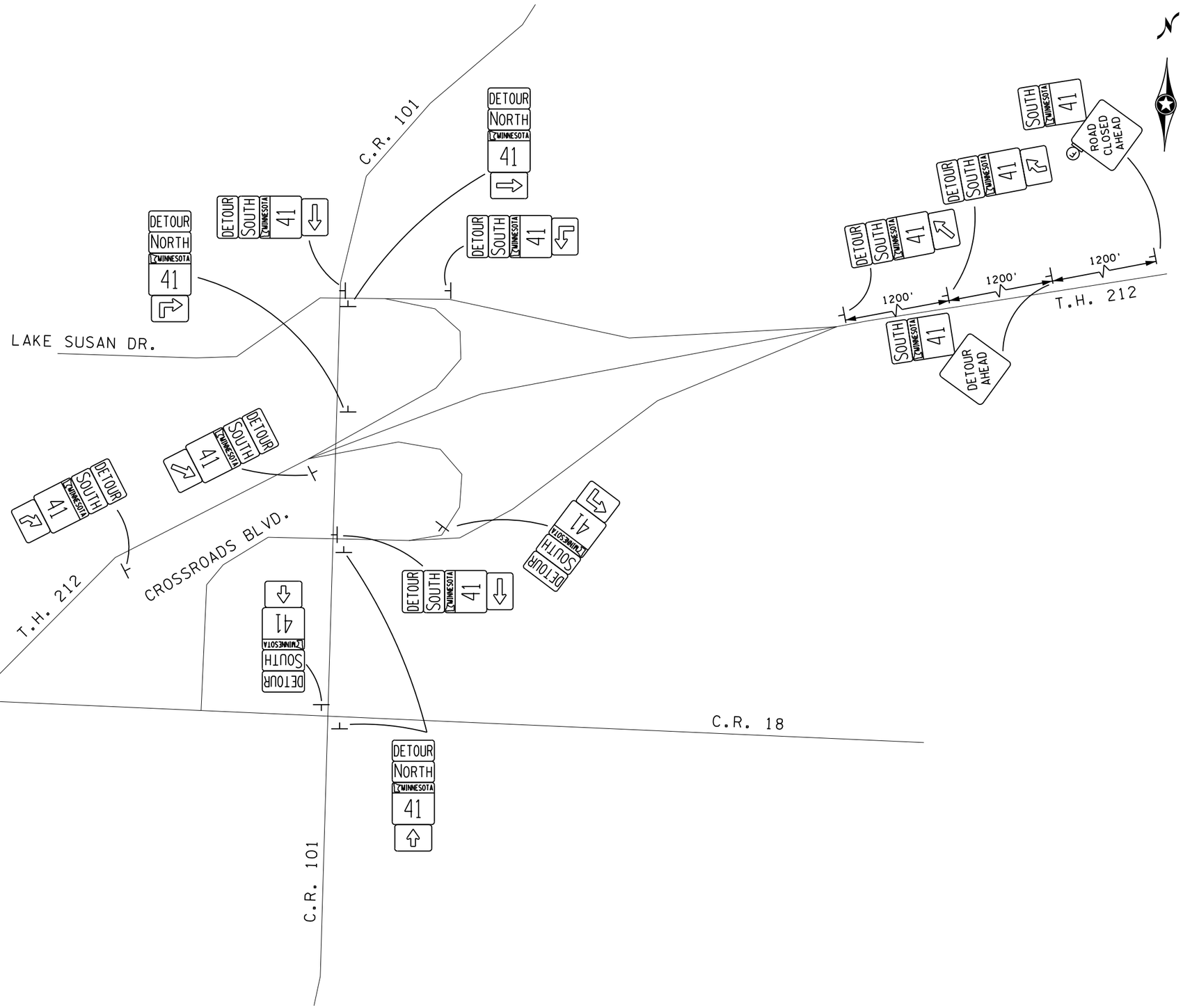
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC27 OF TC36

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PLAN SHEET LOCATION





DETOUR PLAN - STAGE 2B

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DRAWN	ABM
CHECKED	MSL

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC28 OF TC36

SCALE 0 250 500 FEET

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ROAD CLOSED

CLOSE TIGHT
ENFORCED WITH TEMP BARRIER (1)

U.P.R.R.

ROAD CLOSED BEGINNING MONTH DY

ROAD CLOSED AHEAD

1/4 MILE

NO ACCESS TO CHASKA USE DETOUR

GATE POSTED

NO ACCESS TO CHASKA USE DETOUR

GATE POSTED

ROAD CLOSED TO THRU TRAFFIC

GATE POSTED

T.H. 41

Chaska COVER

Chaska NEXT RIGHT USE DETOUR COVER W/ WZ-20

DETOUR SOUTH MINNESOTA 41

T.H. 169

DEM CON DR.

END DETOUR SOUTH MINNESOTA 41

DETOUR SOUTH MINNESOTA 41

DETOUR NORTH MINNESOTA 41

DETOUR NORTH MINNESOTA 41

C.S.A.H. 78

DETOUR AHEAD

NORTH MINNESOTA 41

EMERY WAY

LOUISVILLE RD.

ROAD CLOSED AHEAD

NORTH MINNESOTA 41

DETOUR AHEAD

NORTH MINNESOTA 41

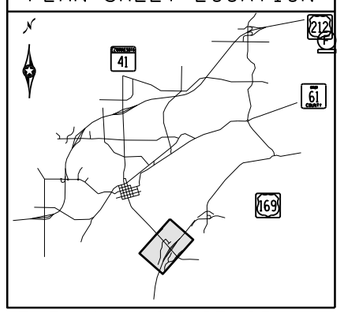
Chaska NEXT RIGHT USE DETOUR COVER W/ WZ-20

NORTH MINNESOTA 41

ROAD CLOSED AHEAD

NOTES:
(1) PLACE 50 LF OF PORTABLE PRECAST TEMPORARY BARRIER DIRECTLY BEHIND TYPE III BARRICADES TO ENFORCE ROAD CLOSURE

PLAN SHEET LOCATION



DETOUR PLAN - STAGE 2B

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SCALE 0 250 500 FEET

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MICHAEL S. LARSON
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DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

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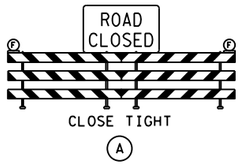
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC29 OF TC36

LEGEND

WORK ZONE





NOTES:
1. CONTRACTOR SHALL MAINTAIN ACCESS AT WALNUT ST AND YELLOW BRICK RD AT ALL TIMES. WALNUT ST AT CSAH 61 SHALL OPERATE AS A THREE WAY STOP CONTROL WHILE SIGNAL IS OUT OF OPERATION. BUSINESS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

SCALE 0 200 400 FEET

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BUSINESS ACCESS SIGNAGE - STAGE 1

S.P. 1008-87 (TH 41), S.P. 196-010-017,
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC30 OF TC36

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LEGEND

- WORK ZONE
- MAINTAIN VEHICLE AND PEDESTRIAN ACCESS
- PUBLIC PARKING LOT

ROAD CLOSED
CLOSE TIGHT
(A)



NOTES:
1. CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE CROSSING OF TH 41 DURING STAGE 2. CROSSING SHALL BE ACCESSIBLE TO VEHICLES AND PEDESTRIANS.
2. CROSSING AT 2ND STREET OR 4TH STREET MUST BE PROVIDED AT ALL TIMES.
3. TH 41 CROSSING MUST BE PROVIDED AND OPEN TO TRAFFIC AT CSAH 61 OR 4TH STREET AT ALL TIMES.
4. PLACE 50 LF OF PORTABLE PRECAST TEMPORARY BARRIER DIRECTLY BEHIND TYPE III BARRICADES TO ENFORCE ROAD CLOSURE AT TH 41 AND WALNUT STREET.

BUSINESS ACCESS SIGNAGE - STAGE 2A+B

SCALE 0 200 400 FEET

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DRAWN	ABM
CHECKED	MSL

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S.P. 196-010-018, S.P. 196-020-014
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STAGING & TRAFFIC CONTROL PLAN

SHEET TC31 OF TC36

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LEGEND

- WORK ZONE
- MAINTAIN VEHICLE AND PEDESTRIAN ACCESS
- PUBLIC PARKING LOT

ROAD CLOSED

CLOSE TIGHT

(A)



NOTES:

1. CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE CROSSING OF TH 41 DURING STAGE 2. CROSSING SHALL BE ACCESSIBLE TO VEHICLES AND PEDESTRIANS.
2. CROSSING AT 2ND STREET OR 4TH STREET MUST BE PROVIDED AT ALL TIMES.
3. PLACE 100 LF OF PORTABLE PRECAST TEMPORARY BARRIER DIRECTLY BEHIND TYPE III BARRICADES TO ENFORCE ROAD CLOSURE AT TH 41 AND CSAH 61.

SCALE 0 200 400 FEET

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Michael S Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED MSL
DRAWN ABM
CHECKED MSL

BUSINESS ACCESS SIGNAGE - STAGE 2B

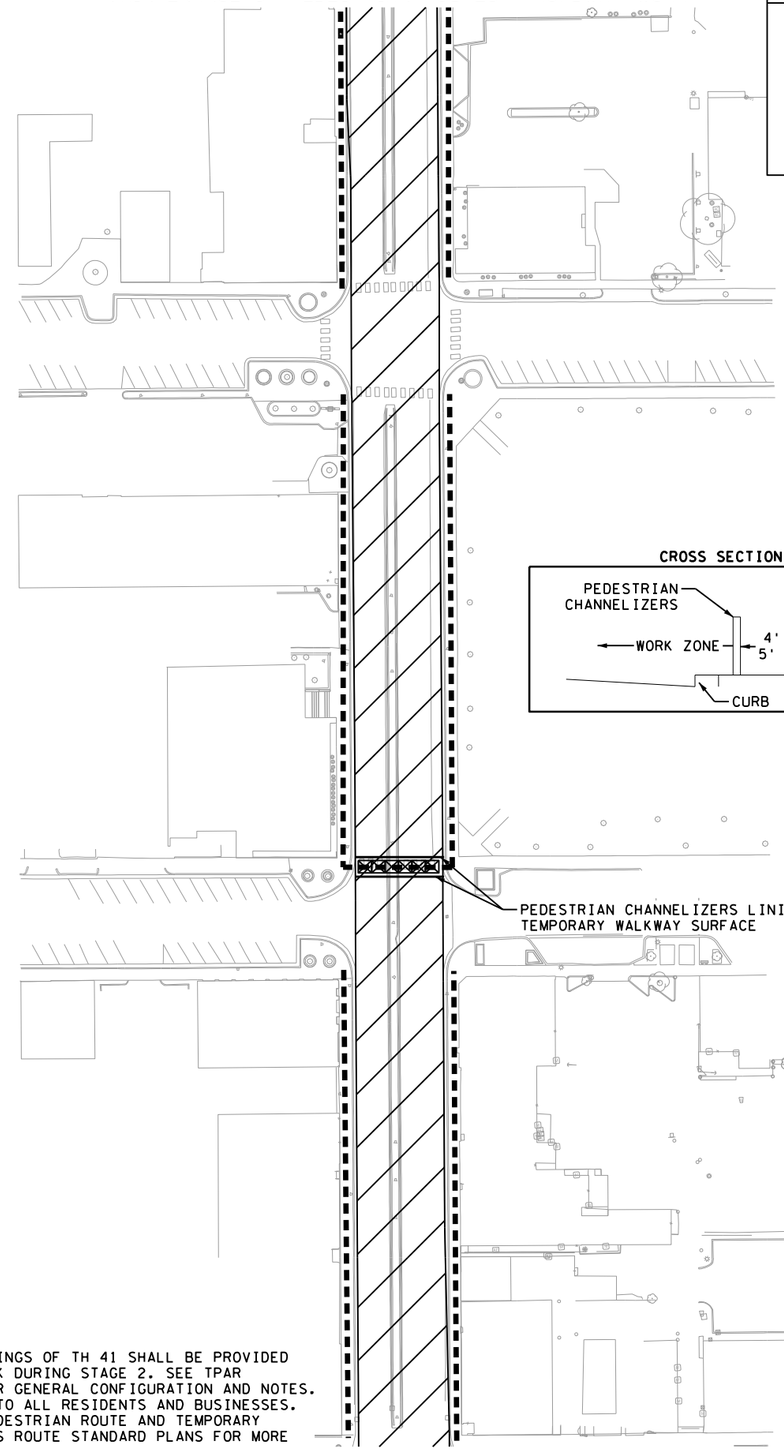
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

SHEET TC32 OF TC36

MAINTENANCE OF PEDESTRIAN ROUTES - ROADWAY WORK



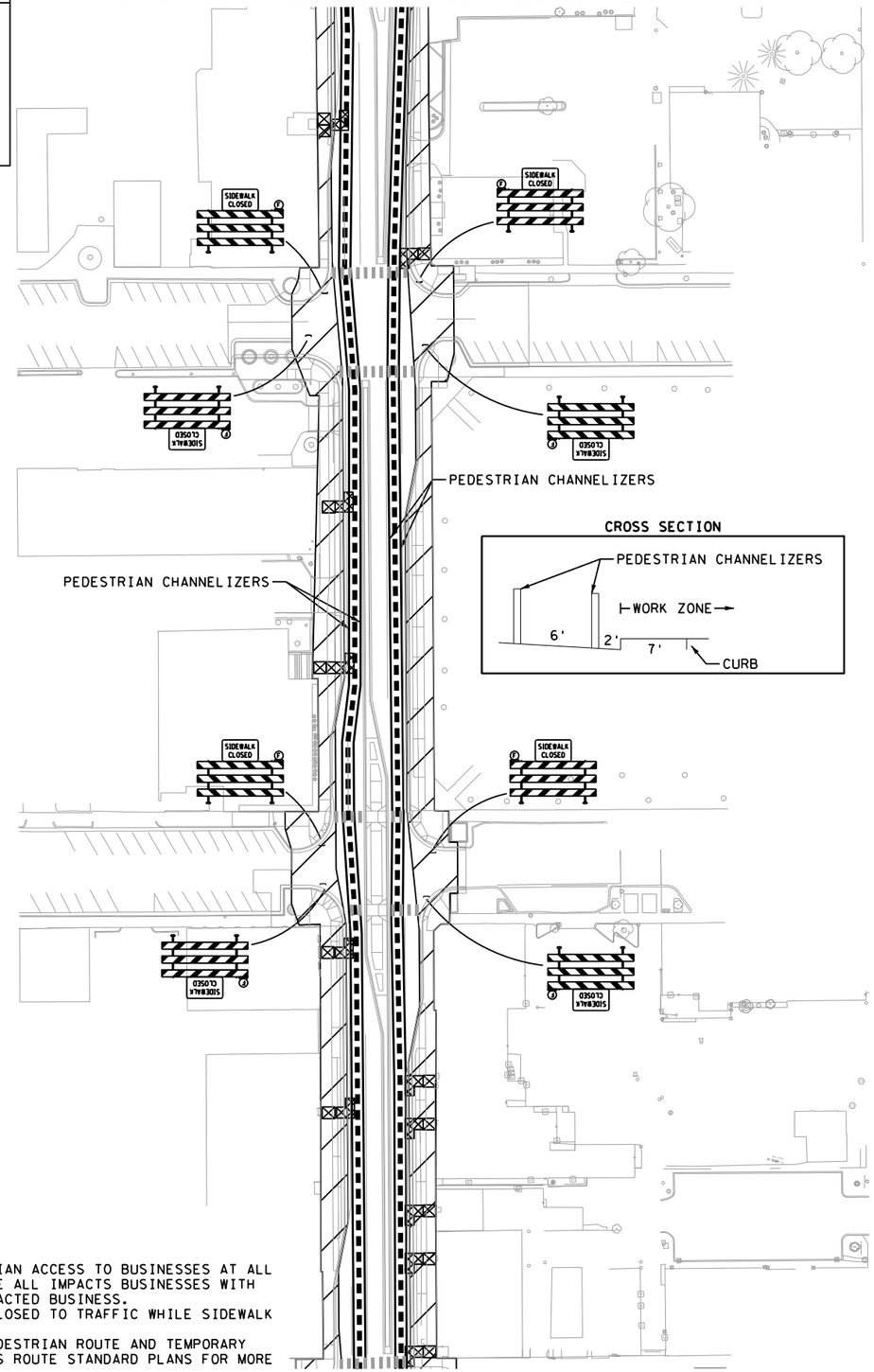
CROSS SECTION

NOTES:
1. PEDESTRIAN CROSSINGS OF TH 41 SHALL BE PROVIDED EVERY OTHER BLOCK DURING STAGE 2. SEE TPAR STANDARD PLAN FOR GENERAL CONFIGURATION AND NOTES.
2. MAINTAIN ACCESS TO ALL RESIDENTS AND BUSINESSES.
3. SEE ALTERNATE PEDESTRIAN ROUTE AND TEMPORARY PEDESTRIAN ACCESS ROUTE STANDARD PLANS FOR MORE INFORMATION.

LEGEND

- WORK ZONE
- TEMPORARY PEDESTRIAN ACCESS ROUTE
- TEMPORARY PEDESTRIAN RAMP
- TEMPORARY WALKWAY SURFACE

MAINTENANCE OF PEDESTRIAN ROUTES - SIDEWALK WORK



CROSS SECTION

NOTES:
1. MAINTAIN PEDESTRIAN ACCESS TO BUSINESSES AT ALL TIMES. COORDINATE ALL IMPACTS BUSINESSES WITH ENGINEER AND IMPACTED BUSINESS.
2. TH 41 SHALL BE CLOSED TO TRAFFIC WHILE SIDEWALK WORK IS ONGOING.
3. SEE ALTERNATE PEDESTRIAN ROUTE AND TEMPORARY PEDESTRIAN ACCESS ROUTE STANDARD PLANS FOR MORE INFORMATION.

TH 41 TPAR TYPICAL DETAIL

0 50 100
SCALE FEET

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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

STAGING & TRAFFIC CONTROL PLAN

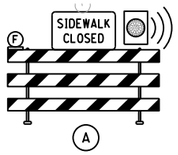
SHEET TC33 OF TC36

pdf-B and W.pltcfg bmi.tbl
1:30:27 PM
2022

LEGEND

WORK ZONE

ALTERNATE PEDESTRIAN ROUTE



CROSSTOWN RD.

T.H. 41

YELLOW BRICK RD.

RAVOUX RD.

C.S.A.H. 61

CITY TRAIL

WALNUT ST.

6TH ST.

5TH ST.

4TH ST.

DETOUR

1 MILE

SIDEWALK CLOSED AHEAD

2,000 FEET

NOTES:
1. AUDIBLE MESSAGE DEVICE VOICE MESSAGES SHALL BE APPROVED BY THE ENGINEER.

STAGE 1 PEDESTRIAN DETOUR

0 300 600
SCALE FEET

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

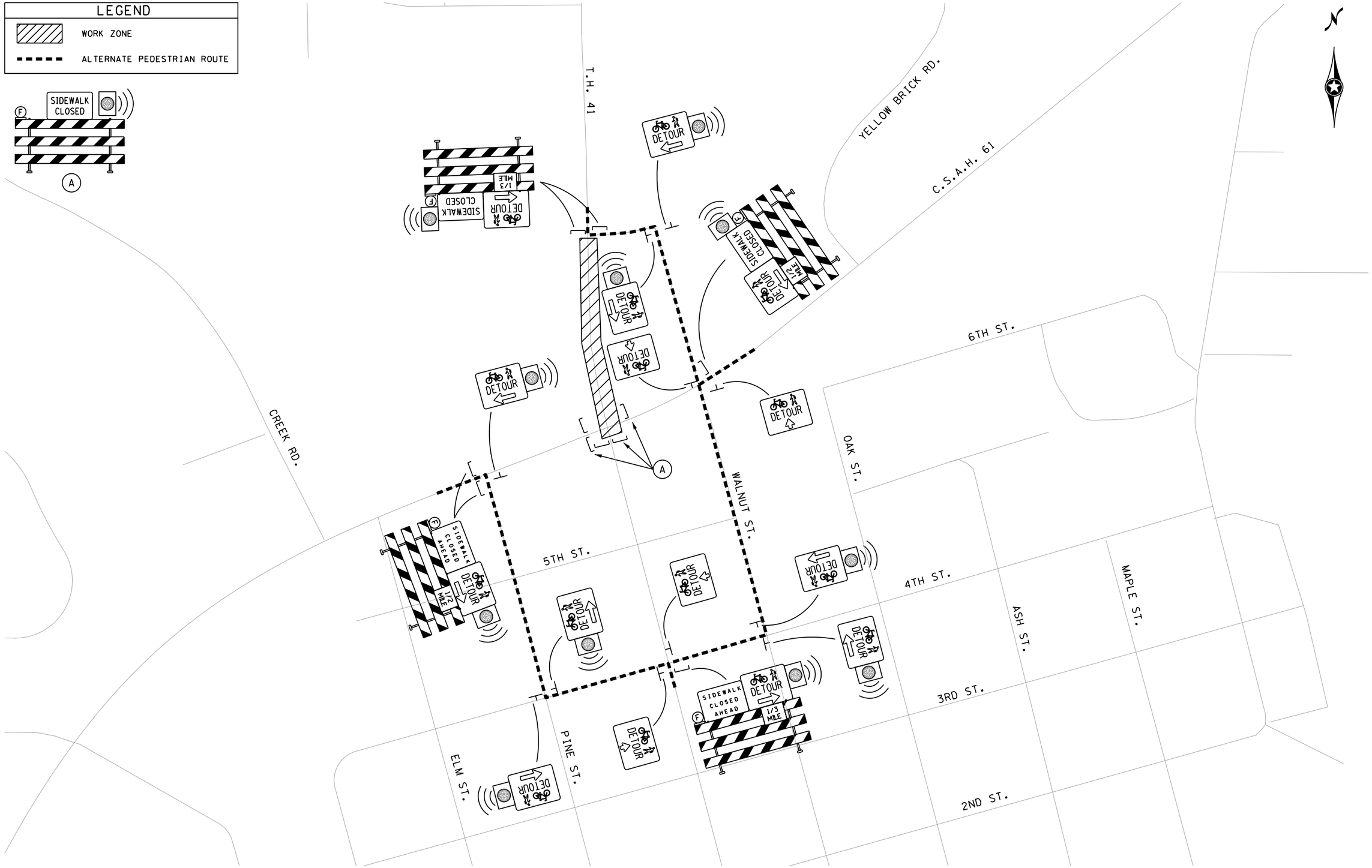
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED	MSL
DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC34 OF TC36

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NOTES:
1. AUDIBLE MESSAGE DEVICE VOICE MESSAGES SHALL BE APPROVED BY THE ENGINEER.

STAGE 2A PEDESTRIAN DETOUR

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

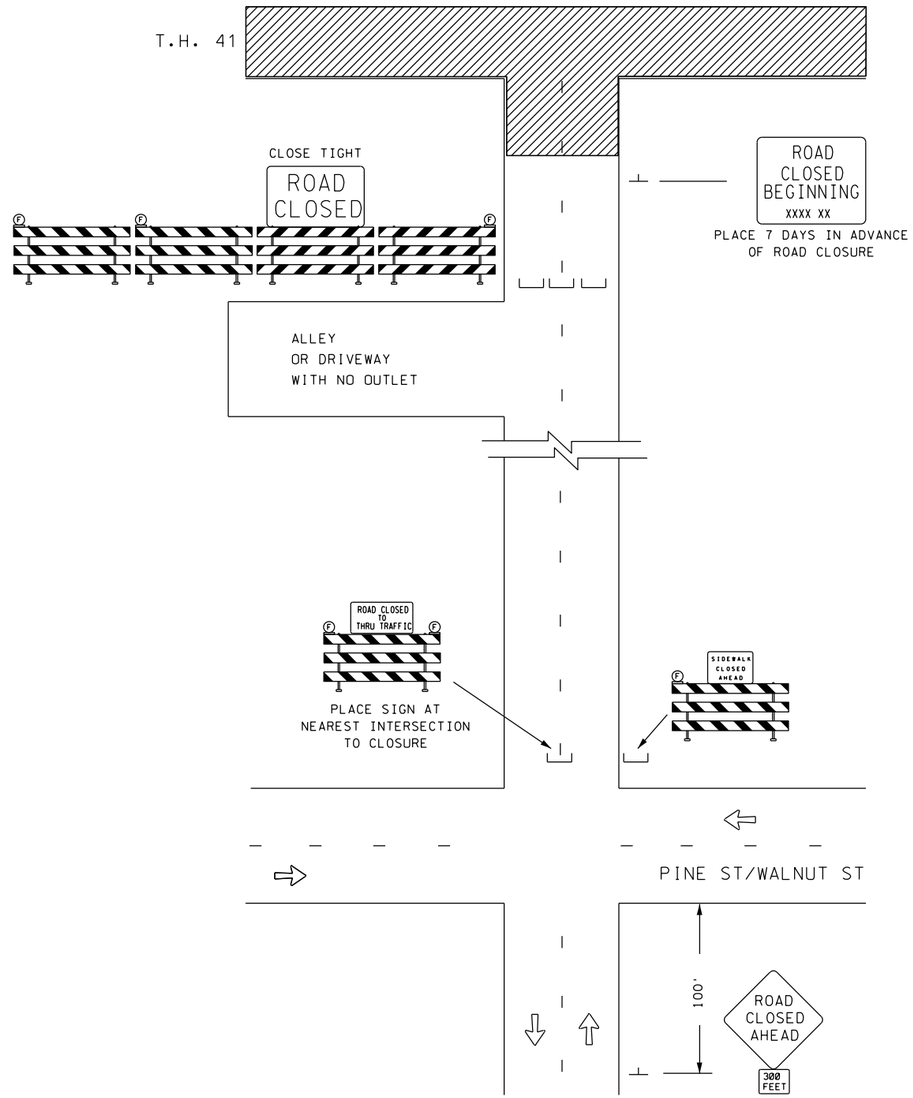
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DRAWN	ABM
CHECKED	MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC35 OF TC36

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3/18/2022 tombu
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NOT TO SCALE



TYPICAL SIGNING FOR ROAD CLOSURE
STAGE 2

TYPICALS

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

REV.	BY	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
MICHAEL S. LARSON
LIC. NO. 58850 DATE 03-02-2022

DESIGNED MSL
DRAWN ABM
CHECKED MSL

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
STAGING & TRAFFIC CONTROL PLAN

SHEET TC36 OF TC36

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LEGEND OF SYMBOLS	
– – – – – – –	CONDUIT - INPLACE
= = = = = = =	CONDUIT - F&I
= = = = = = =	CONDUIT - F&I BORE
– – – – ● ● – – – –	CONDUIT FIBER ONLY - INPLACE
= = = = ● ● = = = =	CONDUIT FIBER ONLY - F&I
= = = = ● ● = = = =	CONDUIT FIBER ONLY - F&I BORE
——— ● ● ———	DIRECT BURIED COMMUNICATION CABLE - INPLACE
——— ● ———	DIRECT BURIED POWER CABLE - INPLACE
□	LOOP DETECTOR-DESIGN (SPECIFY)
P	LOOP DETECTOR- DESIGN PREFORMED
S	LOOP DETECTOR- DESIGN SAWCUT
N	LOOP DETECTOR- DESIGN NMC
V	LOOP DETECTOR- DESIGN VIRTUAL
	WARNING FLASHER - INPLACE
	WARNING FLASHER - F&I
	GATE ARM - INPLACE
	FOUNDATION INPLACE, GATE ARM - F&I
	FOUNDATION F&I, GATE ARM - F&I
	TOLLING BEACON - INPLACE
	TOLLING BEACON - F&I
	TOLLING READER
H	HANDHOLE - INPLACE
	JUNCTION BOX OR CONDULET - INPLACE
	JUNCTION BOX OR CONDULET - F&I
	OVERHEAD SIGN STRUCTURE - INPLACE
	OVERHEAD SIGN STRUCTURE - F&I
	SIGN (TYPE DMS) - (SPECIFY) - INPLACE
	SIGN (TYPE DMS) - (SPECIFY) - F&I
	FOUNDATION/CABINET (SPECIFY) - INPLACE
	FOUNDATION/CABINET (SPECIFY) - F&I
SIG	SIGNAL CABINET

LEGEND OF SYMBOLS	
	PEDESTAL - INPLACE
	PEDESTAL - F&I
	RAMP CONTROL SIGNAL (DESIGN ONE-WAY) - INPLACE
	RAMP CONTROL SIGNAL (DESIGN ONE-WAY) - F&I
	RAMP CONTROL SIGNAL (DESIGN TWO-WAY) - INPLACE
	RAMP CONTROL SIGNAL (DESIGN TWO-WAY) - F&I
	RAMP CONTROL SIGNAL (DESIGN ONE-WAY)(SCREW IN BASE) - INPLACE
	SHELTER CABINET (TMS) - INPLACE
	SHELTER CABINET (TMS) - F&I
S	SPLICE CABINET - (SPECIFY)
FO	SPLICE VAULT (FIBER OPTIC) - (SPECIFY)
TV	TELEVISION CAMERA (CCTV) - (SPECIFY)
	NON-INTRUSIVE DETECTION/POLE - INPLACE
	NON-INTRUSIVE DETECTION/POLE - F&I
TV	NON-INTRUSIVE DETECTION/POLE & CAMERA
I	INTELLIGENT LANE CONTROL SIGN - INPLACE
I	INTELLIGENT LANE CONTROL SIGN - F&I
LCS	LANE CONTROL SIGNAL - SPECIFY
	WOOD POLE - INPLACE
	WOOD POLE - F&I
	WOOD POLE INPLACE, SERVICE INSTALLATION - INPLACE
	WOOD POLE INPLACE, SERVICE INSTALLATION - F&I
PV	PULL VAULT - INPLACE
PV	PULL VAULT - F&I
E	ELECTRICAL SERVICE - INPLACE
E	ELECTRICAL SERVICE - F&I
T	POWER COMPANY TRANSFORMER
E	POWER COMPANY PEDESTAL
GEN	GENERATOR
	PEDESTRIAN GATE - F&I

------GPS-- LINESTYLES WITH GPS DESIGNATION HAVE BEEN FIELD LOCATED

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION
3131C	PRECAST CONCRETE HEADWALL FOR SUBSURFACE DRAINS
8150C	INSTALLATION OF CULVERT MARKERS

TABULATION OF TMS ESTIMATED QUANTITIES SP 1008-87 Y

ITEM NO.	ITEM	NOTES	UNIT	ESTIMATED QUANTITY
2550	BURIED CABLE SIGN		EACH	2
2550	OUTDOOR FIBER SPLICE ENCLOSURE		EACH	3
2550	2" RIGID STEEL CONDUIT		LIN FT	90
2550	1" NON-METALLIC CONDUIT		LIN FT	1392
2550	1.5" NON-METALLIC CONDUIT		LIN FT	3082
2550	FIBER OPTIC CABLE TESTING		LUMP SUM	1
2550	FIBER OPTIC PIGTAIL TERMINATION		EACH	3
2550	FIBER OPTIC CABLE SPLICING		EACH	4
2550	PULL VAULT	(1)	EACH	4
2550	ARMORED FIBER OPTIC PIGTAIL CABLE 6SM		LIN FT	957
2550	1.5" BORED CONDUIT		LIN FT	240
2550	FIBER OPTIC TRUNK CABLE 36SM		LIN FT	4088

NOTES:

(1) 3 PULL VAULTS REQUIRE SPLICING, 1 PULL VAULT HAS NO SPLICING

I HEREBY CERTIFY THAT SHEETS SZ1 THROUGH SZ17 OF THIS PLAN WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MICHAEL P. MANNING

DATE 2/10/2022 LIC. NO. 43957

DESIGNER JEFF RONES

REVISED 6/27/18

REV. NO.	DATE: / /

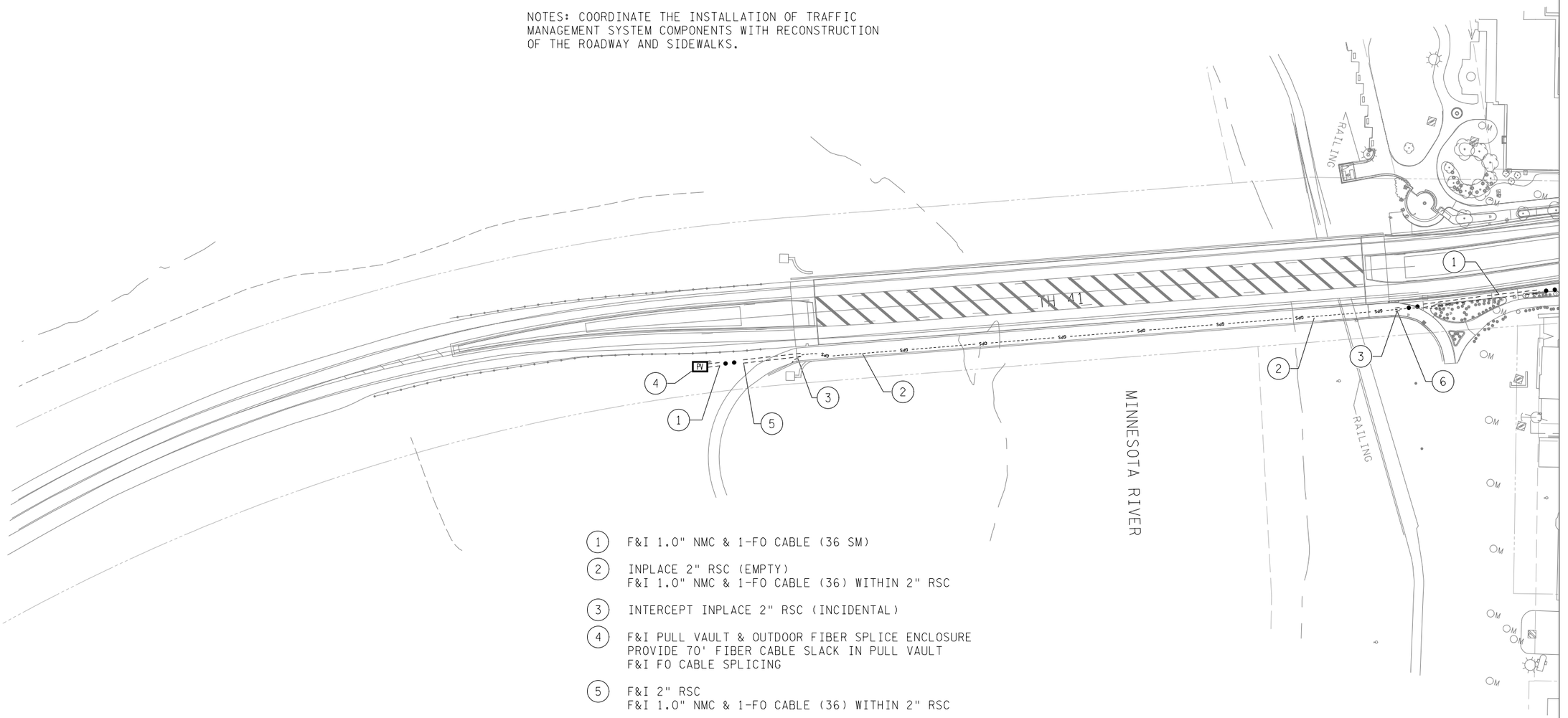
TMS COMPONENTS AND TABULATIONS OF ESTIMATED QUANTITIES

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014 STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ1 OF SZ17 SHEETS

w:\pw8i.ad.dot.state.mn.us:cadp\Documents\Projects\DM_ROS\041\1008\087\FrwOps\PlanSheets\100887_tms south end.dgn
PLOTTED: 2/3/2022 7:35:56 AM
RoneiJef T79CWW161FRW137 TMS

100'
SCALE

NOTES: COORDINATE THE INSTALLATION OF TRAFFIC MANAGEMENT SYSTEM COMPONENTS WITH RECONSTRUCTION OF THE ROADWAY AND SIDEWALKS.



1. F&I 1.0" NMC & 1-FO CABLE (36 SM)
2. INPLACE 2" RSC (EMPTY)
   F&I 1.0" NMC & 1-FO CABLE (36) WITHIN 2" RSC
3. INTERCEPT INPLACE 2" RSC (INCIDENTAL)
4. F&I PULL VAULT & OUTDOOR FIBER SPLICE ENCLOSURE
   PROVIDE 70' FIBER CABLE SLACK IN PULL VAULT
   F&I FO CABLE SPLICING
5. F&I 2" RSC
   F&I 1.0" NMC & 1-FO CABLE (36) WITHIN 2" RSC
6. PLACE DUCT SEAL WHERE NMC ENTERS RSC (INCIDENTAL)

TRAFFIC MANAGEMENT SYSTEM
TH 41 AT THE MINNESOTA RIVER

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

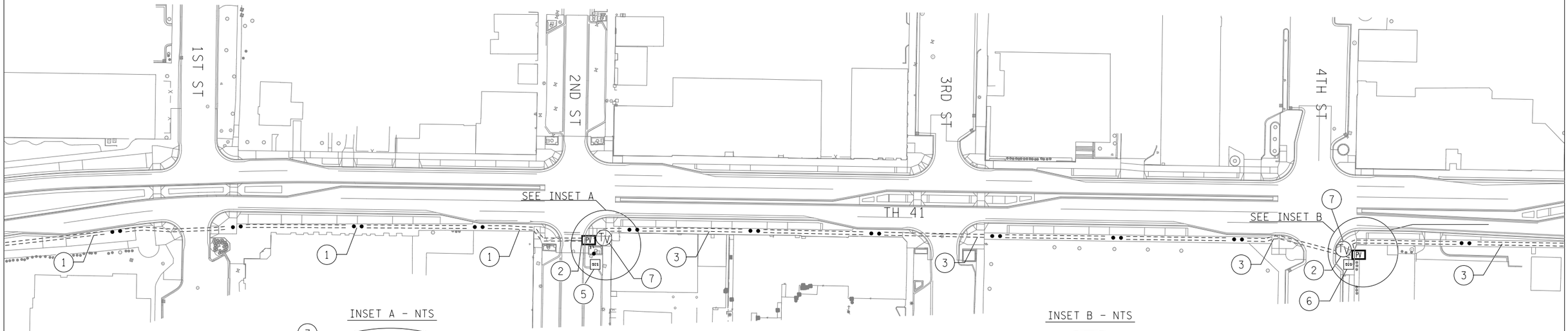
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REV. NO.	DATE: / /		

PLOTTED: 2/8/2022 11:09:41 AM
Rone1Jef T79CWW161FRW137 TMS
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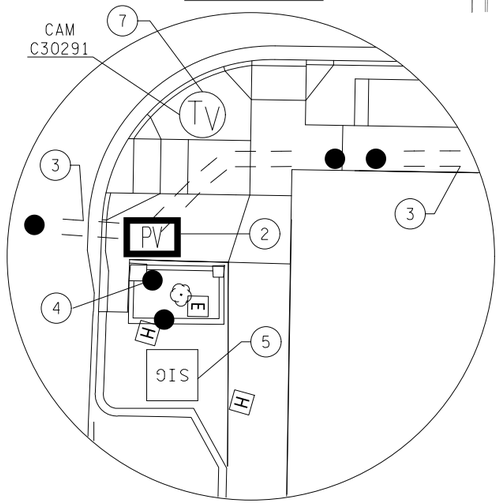
1. F&I 1.0" NMC & 1-FO CABLE (36 SM)
2. F&I PULL VAULT & OUTDOOR FIBER SPLICE ENCLOSURE
   F&I FO CABLE SPLICING
3. F&I 1.5" NMC & 1-FO CABLE (36 SM)
4. PROPOSED 1.5" NMC (SEE SIGNAL PLAN)
   F&I 1-FO PIGTAIL (6 SM)
5. INPLACE SIGNAL CABINET (SIG 1736763)
   F&I 1-FO PIGTAIL TERMINATION
6. INPLACE SIGNAL CABINET (SIG 1735307)
   F&I 1-FO PIGTAIL TERMINATION
7. PROPOSED SIGNAL CAMERA (SEE SIGNAL PLAN)

100'
SCALE

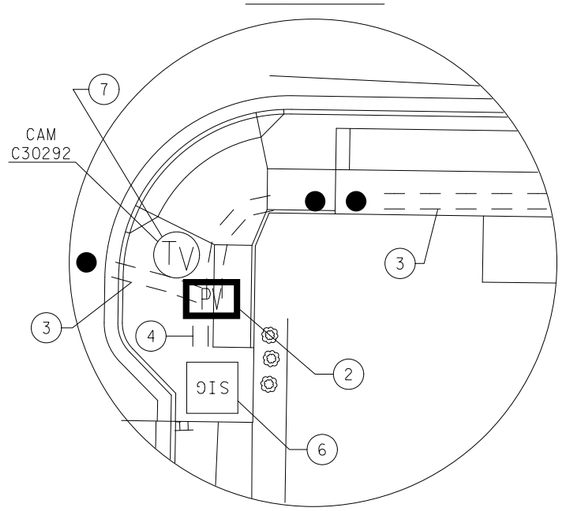
NOTES: COORDINATE THE INSTALLATION OF TRAFFIC MANAGEMENT SYSTEM COMPONENTS WITH RECONSTRUCTION OF THE ROADWAY AND SIDEWALKS.



INSET A - NTS



INSET B - NTS



S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

TRAFFIC MANAGEMENT SYSTEM
TH 41 AT CSAH 61/CHASKA BLVD

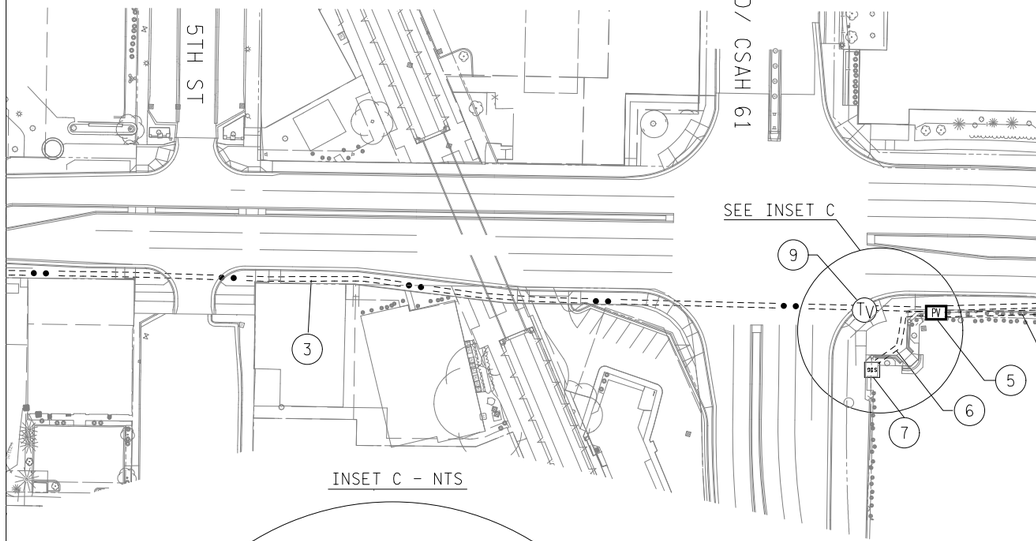
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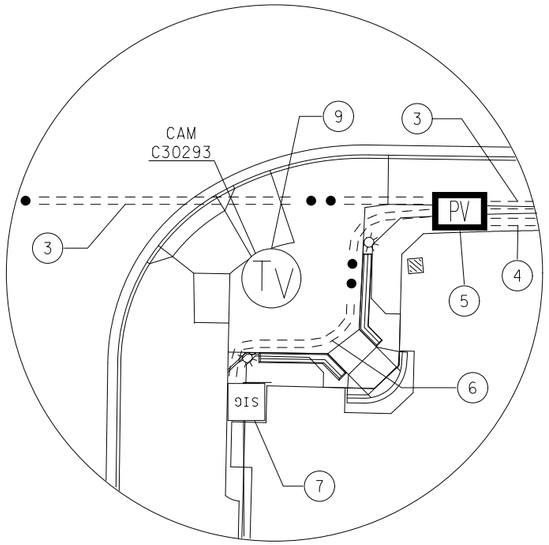
1. INPLACE 1.5" NMC & 1-FO CABLE (6 SM)
2. INPLACE PULL VAULT & OUTDOOR FIBER SPLICE ENCLOSURE
   F&I FO CABLE SPLICING
3. F&I 1.5" NMC & 1-FO CABLE (36 SM)
4. F&I 1.5" NMC & 1-FO PIGTAIL (6 SM)
5. F&I PULL VAULT
6. PROPOSED 1.5" NMC (SEE SIGNAL PLANS)
   F&I 1-FO PIGTAIL (6SM)
7. SIGNAL CABINET (SIG 4344815)
   F&I 1-FO PIGTAIL TERMINATION
8. F&I 1.5" NMC BORE & 1-FO CABLE (36 SM)
   F&I 1.5" NMC BORE & 1-FO PIGTAIL (6 SM)
9. PROPOSED TRAFFIC MANAGEMENT CAMERA (SEE SIGNAL PLAN)

100'
SCALE

NOTES: COORDINATE THE INSTALLATION OF TRAFFIC MANAGEMENT SYSTEM COMPONENTS WITH RECONSTRUCTION OF THE ROADWAY AND SIDEWALKS.



INSET C - NTS



S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

TRAFFIC MANAGEMENT SYSTEM
TH 41 AT CSAH 61/CHASKA BLVD

REV. NO.	DATE: / /	CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC.NO. 43957 FEB. 10 2022	STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ4 OF SZ17 SHEETS

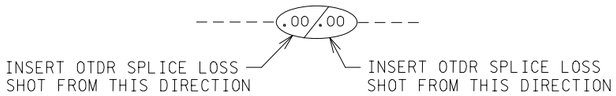
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c:\pw8i.ad.dot.state.mn.us:cadp\Documents\Projects\DM_ROS\041\1008\087\FrwOps\PlanSheets\100887_dt1.dgn

INDEX OF REFRACTION

PROVIDE CABLE MANUFACTURERS INDEX OF REFRACTION USED FOR TESTING ON PROJECT.

◡ = FURNISHED SPLICE, NO SPLICE OTDR READING REQUIRED AT THIS LOCATION

(X.X) POWER METER/OTDR LAUNCH TEST POINT
INSERT OPTICAL LINK LOSS IN dB
(TEST MULTI MODE FIBER AT 1300)
(TEST SINGLE MODE FIBER AT 1550)



= FO CABLE SPLICE POINT & OTDR TEST SPLICE READING

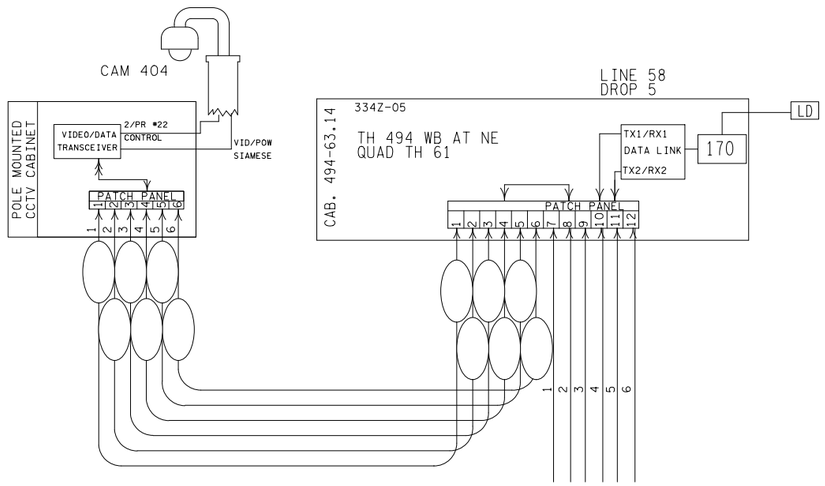
= OTDR TEST SPLICE READING ON INPLACE CABLE

PIGTAIL OTDR LENGTH ← km
OTDR LENGTH → km TO SHELTER

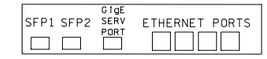
PROVIDE TRUNK AND PIGTAIL OTDR FIBER LENGTH MEASUREMENTS USING OTDR READINGS FROM CONNECTORS AT SHELTER OR CABINETS TO SPLICE POINTS IN VAULTS

FIBER OPTIC CABLE MARKINGS @
SPLICE ENCLOSURE _____
VAULT ENTRY _____

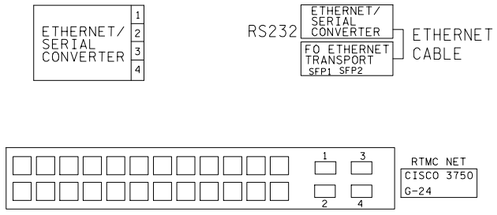
PROVIDE TRUNK CABLE OUTER JACKET LENGTH MARKINGS AT ENTRY TO VAULT AND AT ENTRY TO OUTDOOR FIBER SPLICE ENCLOSURE



NOTE: CABINET TO CABINET PIGTAILS REQUIRE BOTH POWERMETER AND OTDR TESTING OF CABLE

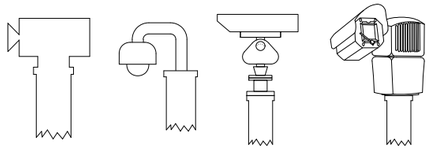


FO ETHERNET TRANSPORT

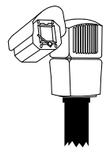


ETHERNET SWITCH

COMMON ETHERNET EQUIPMENT

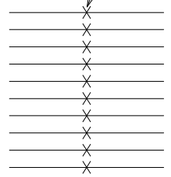


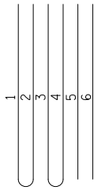
EXISTING CAMERA WITH PAN AND TILT UNIT



PROPOSED CAMERA WITH PAN AND TILT UNIT (BY OTHERS)

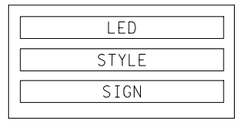
EXISTING FO CABLE SPLICE POINT





FIBER OPTIC PIGTAIL SPLICE DIAGRAM

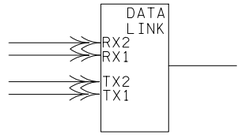
(SPLICE UNUSED FIBERS TOGETHER IN THE SPLICE VAULT SO THAT THE FIBERS CAN BE TESTED)



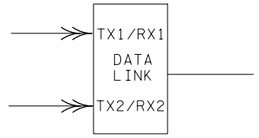
DYNAMIC MESSAGE SIGN

FIBER OPTIC PATCHCORD

TWISTED PAIR INTERCONNECT



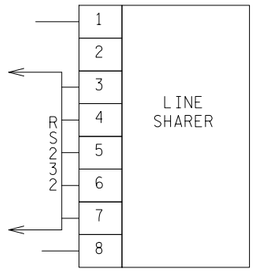
FORCE TRANS. MODEL 2869 DATA LINK



OPTELECOM MODEM DATA LINK



VIDEO & DATA TRANSCEIVER TRANSMITTER



RS 232 LINE SHARER

170	170 CONTROLLER
DMS	CHANGEABLE MESSAGE SIGN
FLS	FLASHER
RCS	RAMP CONTROL SIGNAL
LDS	LOOP DETECTOR STATION
LD	LOOP DETECTOR(S)
ILCS	INTELLIGENT LANE CONTROL SIGN

REVISED 6/27/18

REV. NO.	DATE: / /

CERTIFIED BY _____ LIC.NO. 43957 FEB. 10 2022
LICENSED PROFESSIONAL ENGINEER

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

LEGEND FOR COMMUNICATION SCHEMATICS

STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ5 OF SZ17 SHEETS

RoneiJef T79CWW161FRW137 TMS
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GENERAL NOTES

* Add cable identifiers to color coded electrical tape with a permanent marker as shown on this detail.

e.g.: 94.41 East 24SM 01467M.

94.41 = Cable ID#
East = Direction
24SM = Cable fiber count
01467 = Nearest cable length marking to where the tape is applied.

* Electrical tape colors:
  NB (Blue)
  SB (Green)
  EB (Yellow)
  WB (Orange)
  Pigtails (White)

* The electrical tape with the identifiers is added to:

  - 334Z-Type Cabinets to within 18" of the entrance conduit on the outer jacket of the fiber optic cable.

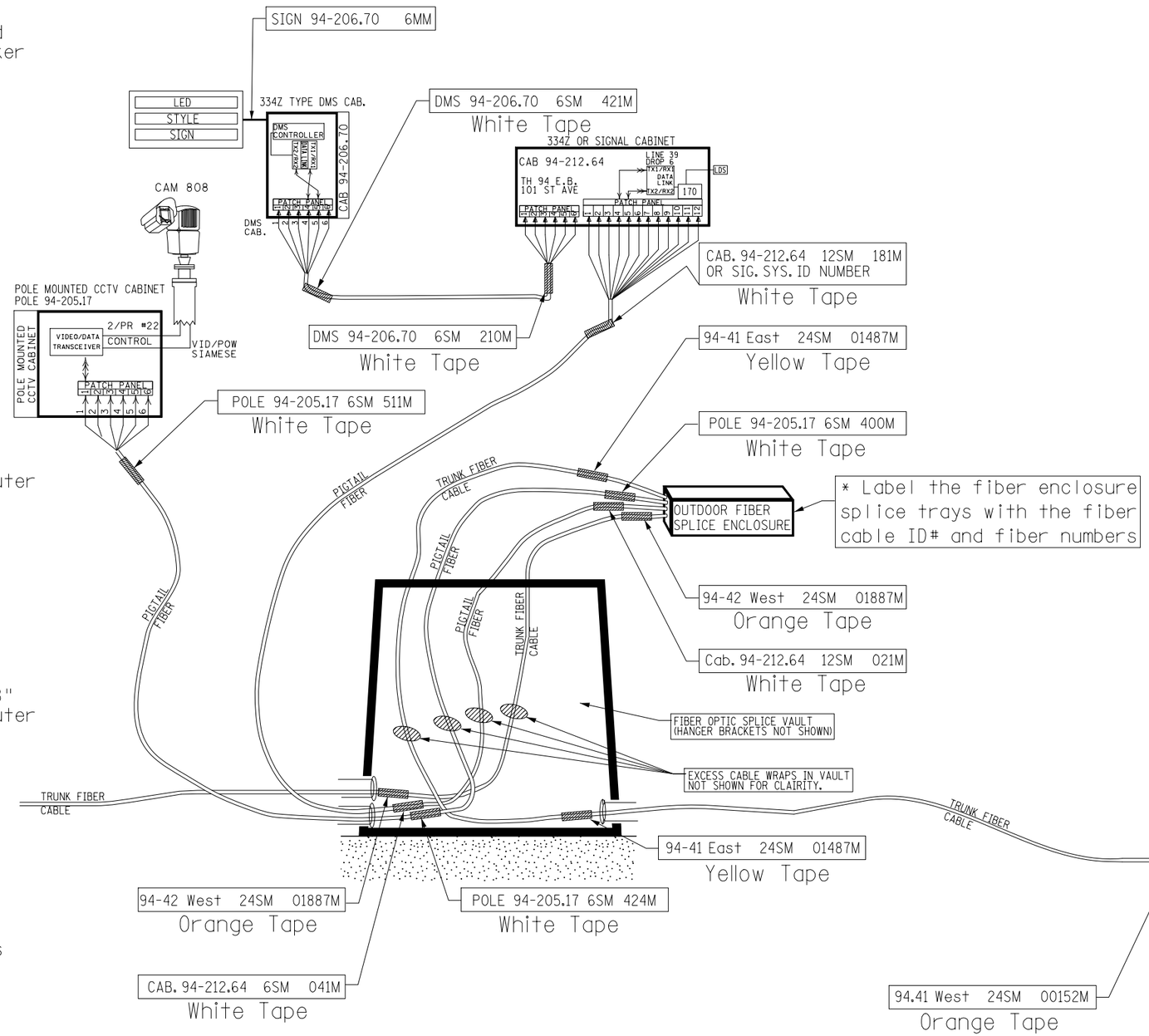
  - Pole Mounted CCTV Cabinet between the entrance point and the fiber termination panel.

  - FO Splice Vaults to within 18" of the splice enclosure and the entrance conduit.

  - TMS Shelter Cabinets to within 18" of the entrance conduit on the outer jacket of the fiber optic cable and again to within 18" of the splice panel on the inner jacket of the fiber optic cable.

* Neatly tape the fiber optic cables together as needed near the fiber enclosure then throughout the length of slack.

* Neatly coil the fiber optic cables into the fiber optic hanger brackets inside the vault.



TMS SHELTER CABINET

SHELTER NOTES

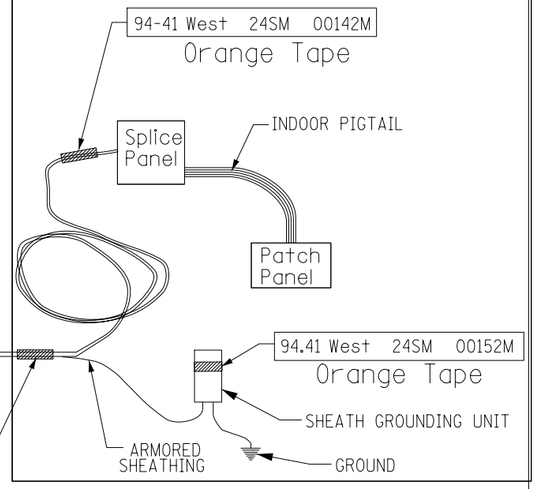
* Label the indoor pigtail six-paks on the outer jacket at both the splice tray/wheel and inside the patch panel to indicate the fiber cable ID # and which six fibers the six-paks are spliced to:
  (e.g. 94-12 SM7-12)

* Label the front of the splice panels with the fiber cable ID#, direction, and fiber count.

* Label splice trays/wheels with the fiber cable ID# and the fiber count.

* Label the front of patch panels with the fiber cable ID#, direction and fiber count.

* Label the sheath grounding unit with the fiber cable ID#, direction and fiber count.



REVISED 6/27/18

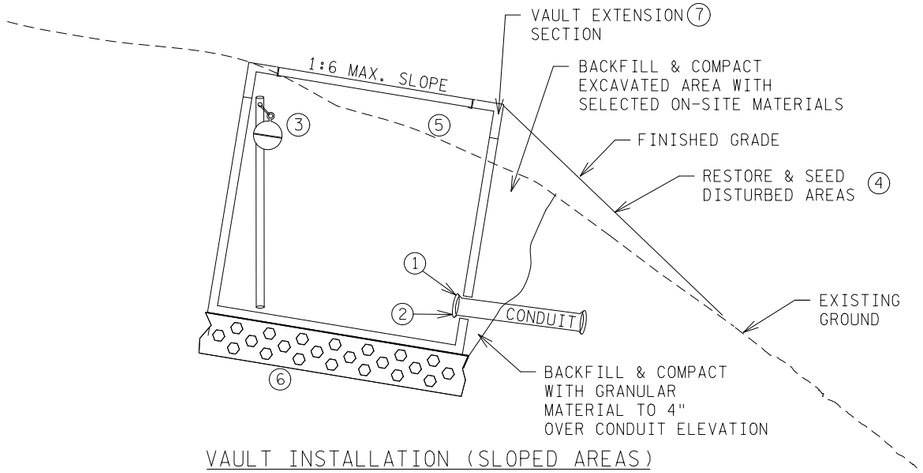
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CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC.NO. 43957 FEB. 10 2022

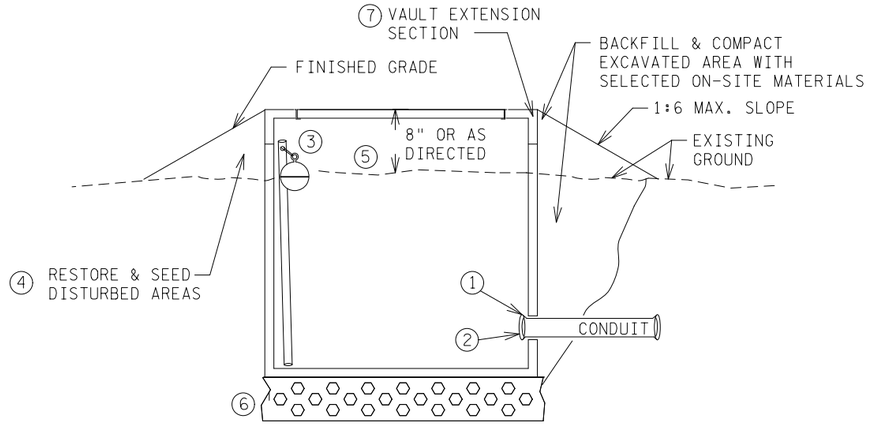
S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014 FIBER OPTIC CABLE LABELING DETAIL

STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ6 OF SZ17 SHEETS

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VAULT INSTALLATION (SLOPED AREAS)



VAULT INSTALLATION (LEVEL GROUND)

SPECIFIC NOTES

(1) OPENINGS FOR CONDUIT SHALL BE SEALED WITH MATERIAL COMPATIBLE SEALANT.(INCIDENTAL)

(2) F&I BELL ENDS ON THE CONDUITS PLUG ALL CONDUIT OPENINGS WITH A DRAINABLE COMPOUND

(3) LOCATOR BALL ATTACHED WITH BLACK TIE WRAP TO 40" LENGTH OF 3/4" PVC CONDUIT TO SIT WITHIN 6" OF COVER

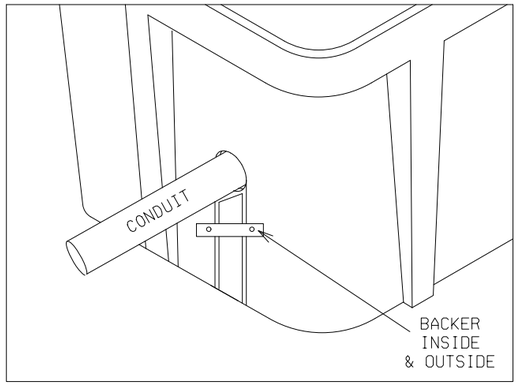
(4) RESTORE DISTURBED AREAS FOR TMS INSTALLATION WITH SEED AND ROLLED EROSION PREVENTION CATEGORY 20 PER MNDOT 2575.3 (INCIDENTAL)

(5) STRIP TOPSOIL FROM VAULT AND SLOPE AREAS PRIOR TO VAULT INSTALLATION (INCIDENTAL)

(6) F&I 1.0' COARSE FILTER AGGREGATE UNDER BASE COMPLYING WITH MN/DOT 3149.2H.(INCIDENTAL)

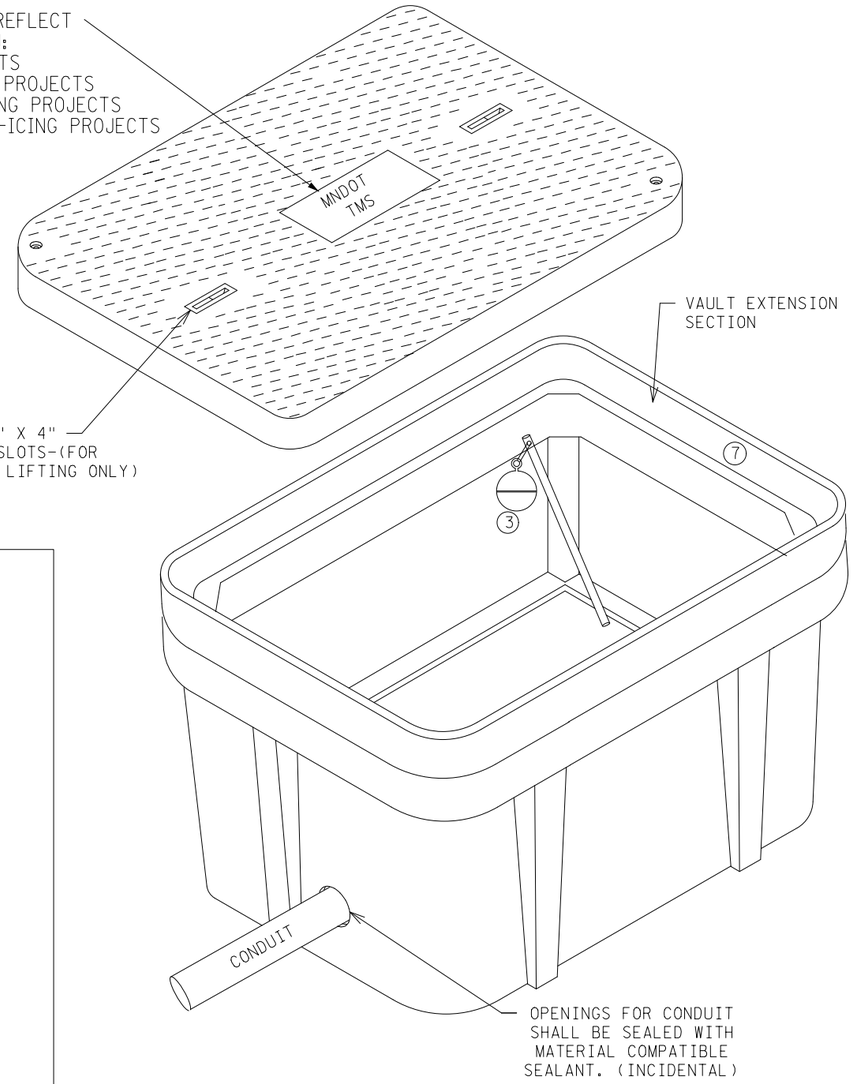
(7) F&I VAULT EXTENSION SECTION AT ALL PULL VAULT INSTALLATIONS TO FACILITATE FUTURE DAMAGE REPAIRS

PULL VAULT INSTALLATION OVER INPLACE CONDUIT



INSTALLATION NOTES

1. REMOVE APPROX. A 2' SECTION OF THE CONDUIT TO BE INTERCEPTED. USE CAUTION NOT TO DAMAGE INPLACE CABLES.
2. F&I BELL ENDS TO THE CONDUITS.
3. CUT A SLOT THE WIDTH OF THE CONDUIT AS HIGH ON THE PULL VAULT SIDE WALL AS NEEDED.
4. SET THE PULL VAULT OVER THE CONDUIT.
5. SET THE CUT OUT PIECE BACK INTO THE OPENING.
6. SCREW/BOLT A BACKER TO THE INSIDE AND OUTSIDE OF THE PULL VAULT TO HOLD THE CUTOUT PIECE IN-PLACE.
7. APPLY A FIBERGLASS RESIN AND MAT OR BODY FILLER ACROSS THE ENTIRE CUTOUT ON THE INSIDE OF THE PULL VAULT.



GENERAL NOTES

1. DO NOT LIFT ENTIRE PULL VAULT WITH COVER ATTACHED BY COVER LIFTING SLOTS.

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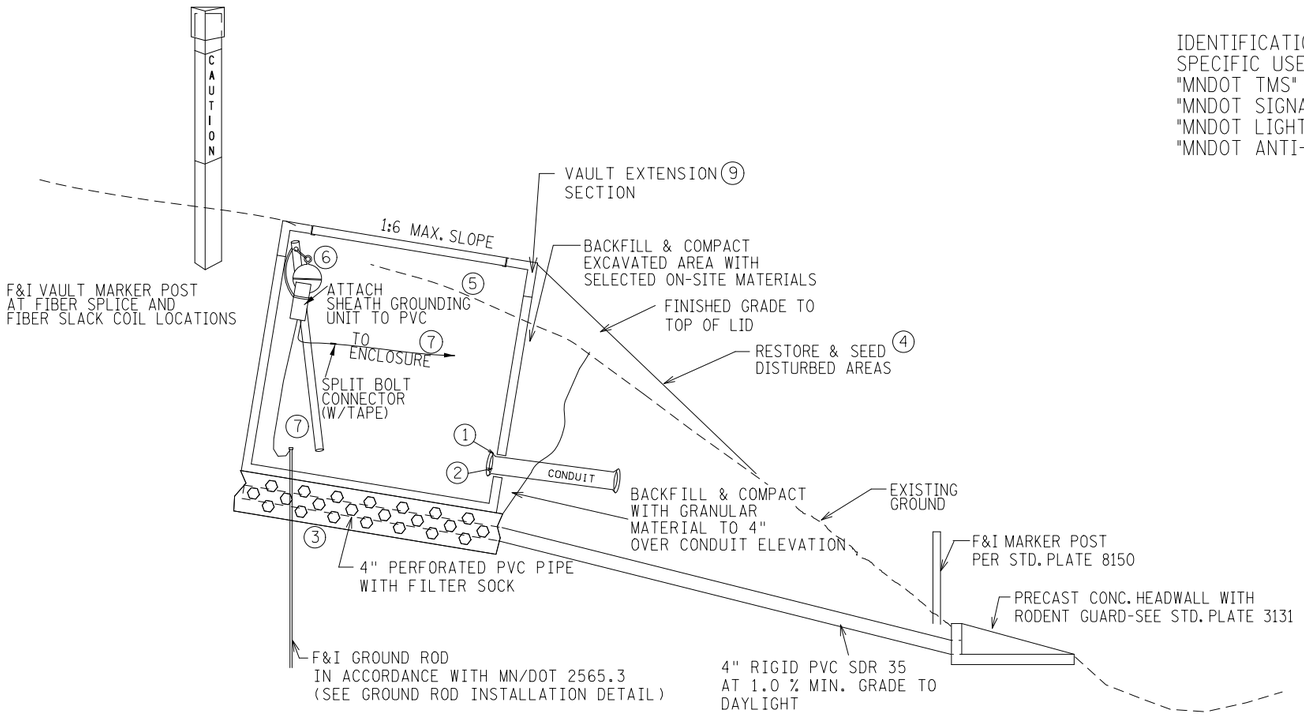
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LICENSED PROFESSIONAL ENGINEER

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

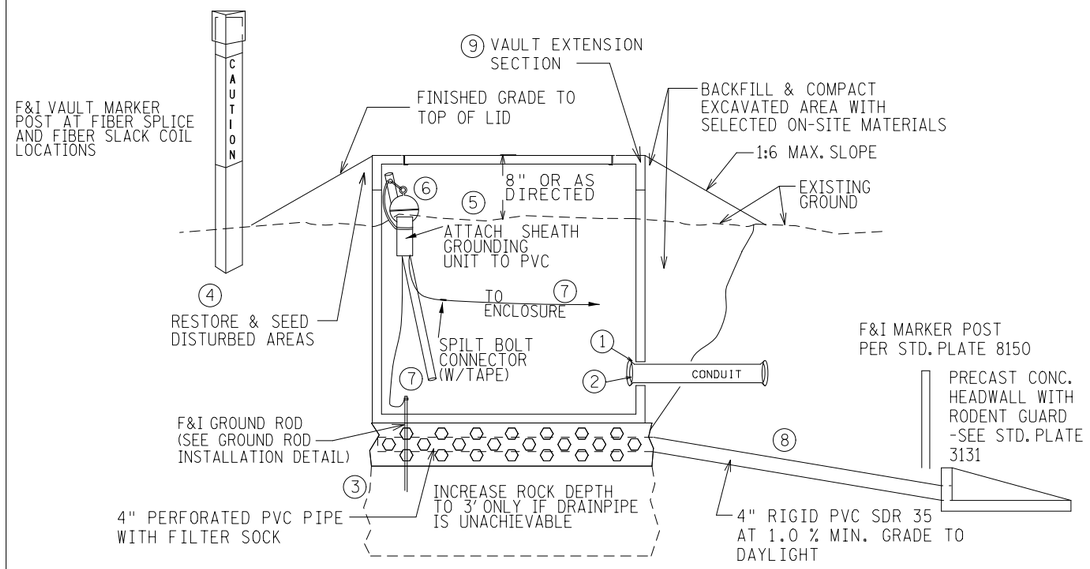
STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ7 OF SZ17 SHEETS

PULL VAULT INSTALLATION DETAIL

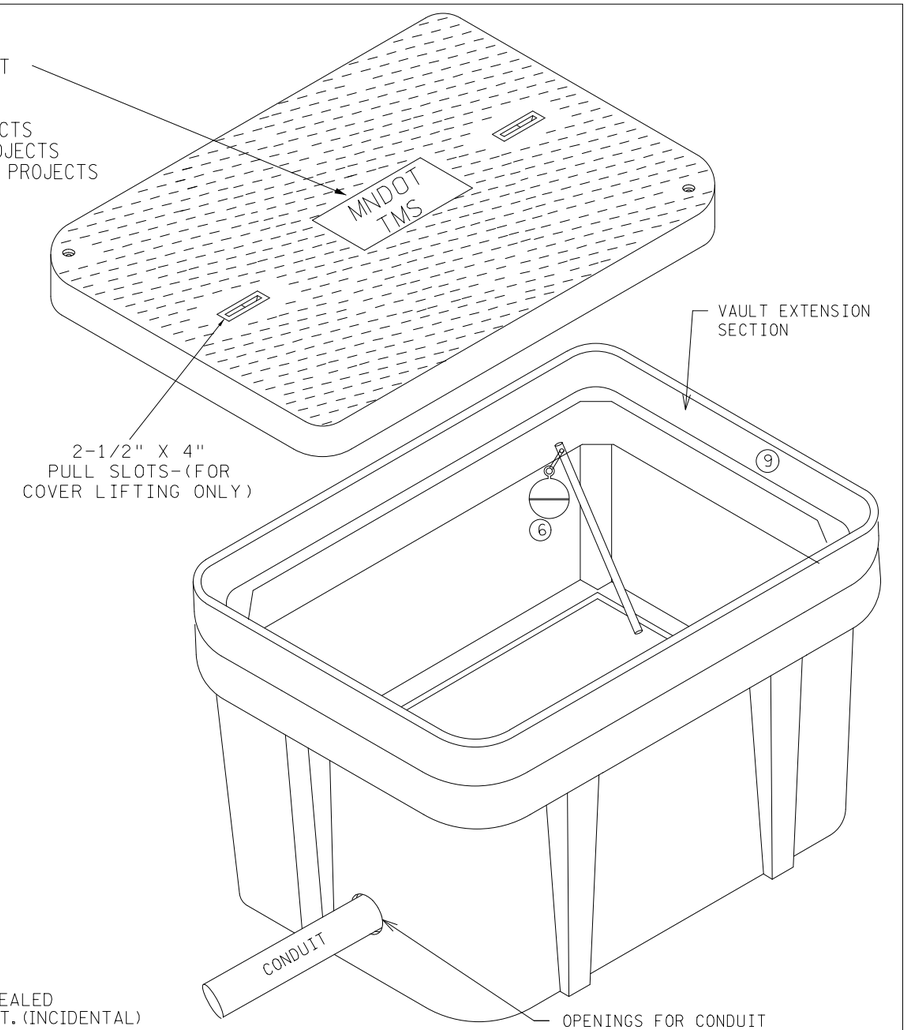
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VAULT INSTALLATION & DRAINAGE SYSTEM (SLOPED AREAS)



VAULT INSTALLATION & DRAINAGE SYSTEM
(LEVEL GROUND & ACHIEVABLE DRAINAGE AREAS)



SPECIFIC NOTES

(1) OPENINGS FOR CONDUIT SHALL BE SEALED WITH MATERIAL COMPATIBLE SEALANT. (INCIDENTAL)

(2) PLUG CONDUIT OPENING WITH A DRAINABLE COMPOUND (INCIDENTAL)

(3) F&I 1.0' COARSE FILTER AGGREGATE UNDER BASE COMPLYING WITH MN/DOT 3149.2H. F&I 4" PERFERATED PVC PIPE WITH FILTER SOCK TO PROVIDE DRAINAGE. (INCIDENTAL)

(4) RESTORE DISTURBED AREAS FOR TMS INSTALLATION WITH SEED AND ROLLED EROSION PREVENTION CATEGORY 20 PER MNDOT 2575.3 (INCIDENTAL)

(5) STRIP TOPSOIL FROM VAULT AND SLOPE AREAS PRIOR TO VAULT INSTALLATION (INCIDENTAL)

(6) MOUNT LOCATOR BALL ATTACHED WITH BLACK TIE WRAP TO 40" LENGTH OF 3/4" PVC CONDUIT TO SIT WITHIN 6" OF COVER

(7) 6' OF NO.6 GREEN INSULATED STRANDED WIRE

(8) DRAIN PIPE MAY BE PLACED IN SIDEWALL OF PULL VAULT TO ACHIEVE DRAINAGE IN AREAS WHERE MINIMUM PIPE OUTFALL IS AVAILABLE INCREASE ROCK DEPTH TO 3.0' IF DRAIN PIPE IS PLACE ABOVE FLOOR HEIGHT.

(9) F&I VAULT EXTENSION SECTION AT ALL PULL VAULT INSTALLATIONS TO FACILITATE FUTURE DAMAGE REPAIRS

GENERAL NOTES

1. GROUND CONNECTIONS SHALL BE COATED WITH OXIDATION PROHIBITING COMPOUND.
2. CABLE SHALL ENTER BELOW THE SUPPORT BRACKETS WITH MIN. 70' OF SLACK OUTSIDE OF THE ENCLOSURE FOR EACH CABLE. CABLE SHALL BE COILED AROUND INSIDE OF SUPPORT BRACKETS. CABLES SHALL BE CUT TO THE SAME LENGTH AT THE ENCLOSURE.
3. DO NOT LIFT ENTIRE PULL VAULT WITH COVER ATTACHED BY COVER LIFTING SLOTS.
4. SHEATH GROUNDING DEVICE AND GROUND ROD ARE NOT PLACED IN VAULTS WHERE SPLICING DOES NOT TAKE PLACE.

FIBER OPTIC PULL VAULT AT SPLICING LOCATIONS INSTALLATION DETAIL

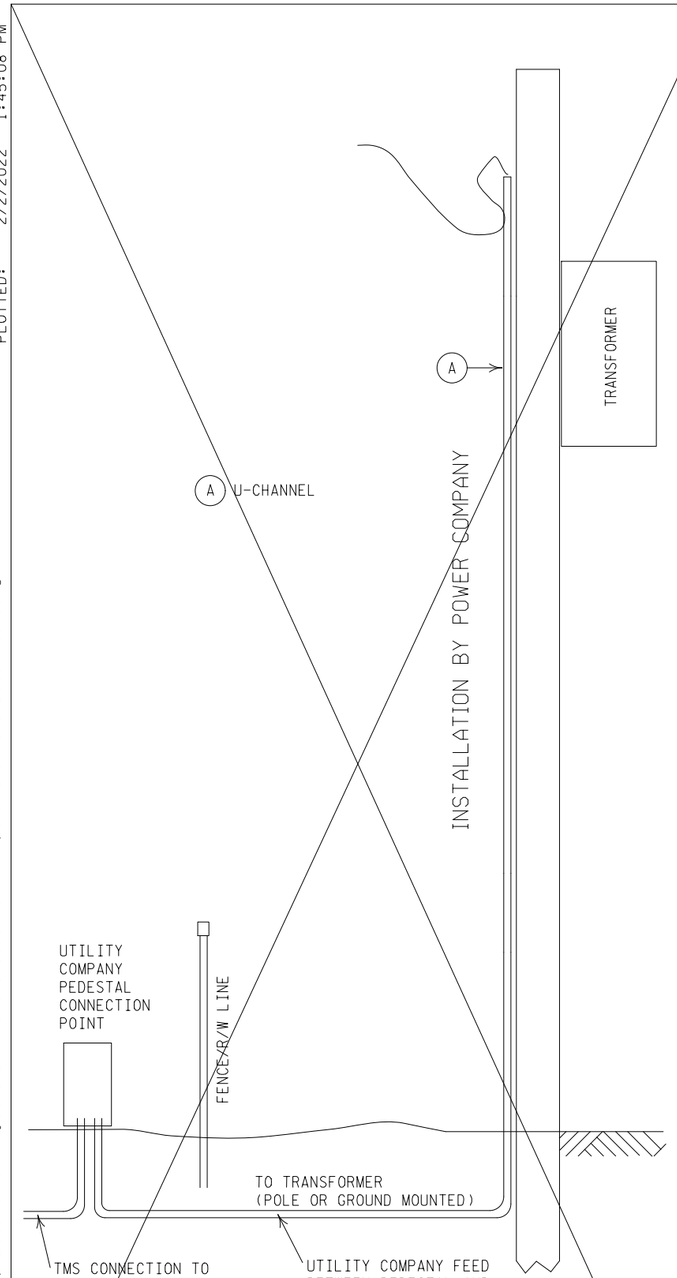
S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

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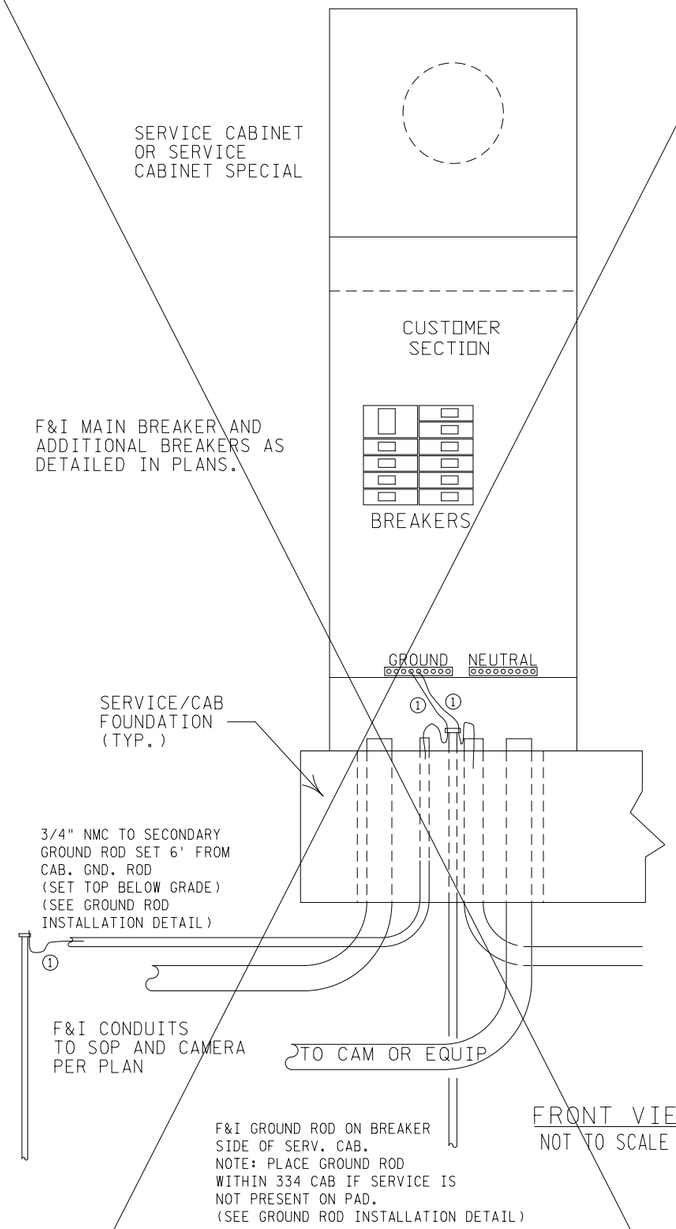
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STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ8 OF SZ17 SHEETS

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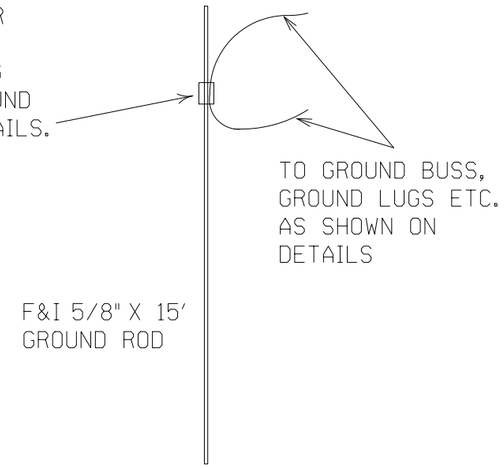


TYPICAL CONNECTION TO UTILITY COMPANY SOURCE OF POWER



SERVICE CABINET/SERVICE CABINET SPECIAL INSTALLATION

F&I GROUND ROD AND EXOTHERMICALLY WELD OR MECHANICALLY CLAMP TO THE DMS, CCTV GROUNDING BRAIDS OR 1/C NO.6 GROUND WIRES AS SHOWN ON DETAILS. COAT CONNECTION WITH ANTI-OXIDIZING AGENT





SINGLE BOLT GROUND CLAMP FOR USE AT BONDING/GROUND WIRE LOCATIONS



DOUBLE BOLT GROUND CLAMP FOR USE WITH LIGHTNING PROTECTION GROUNDING BRAIDS AT CCTV AND DMS LOCATIONS

GROUND ROD INSTALLATIONS

SERVICE & GROUNDING INSTALLATIONS

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

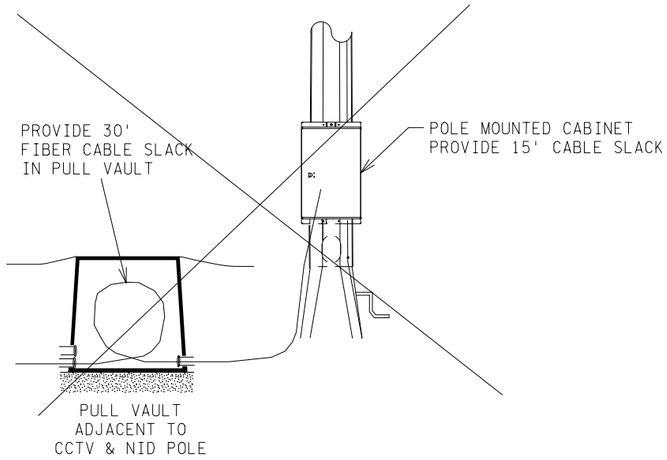
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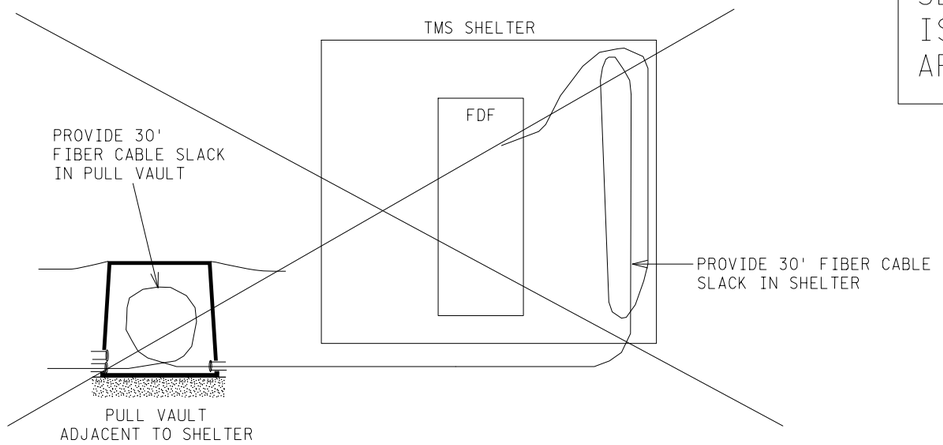
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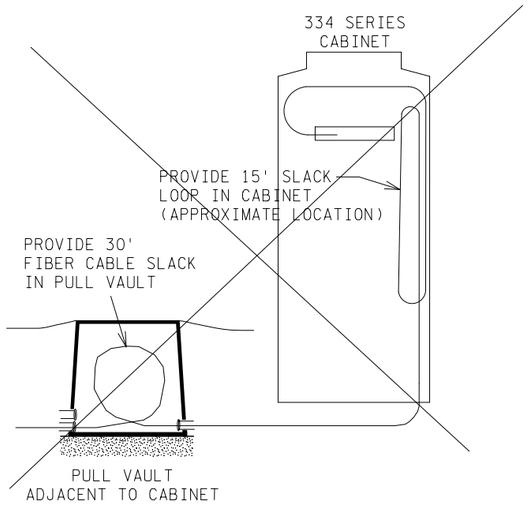
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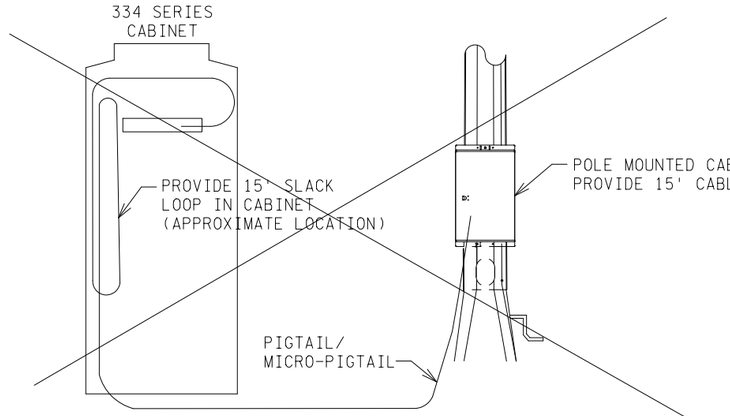
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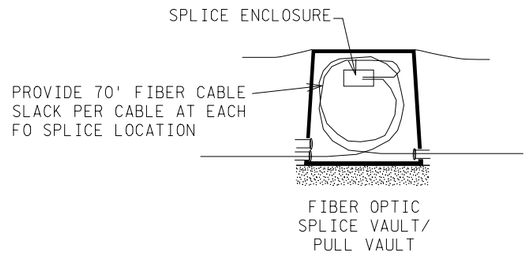
SLACK LENGTH NOTED IN EACH SCENERIO IS THE FINAL SLACK LENGTH REQUIRED AFTER DEVICES ARE CONNECTED

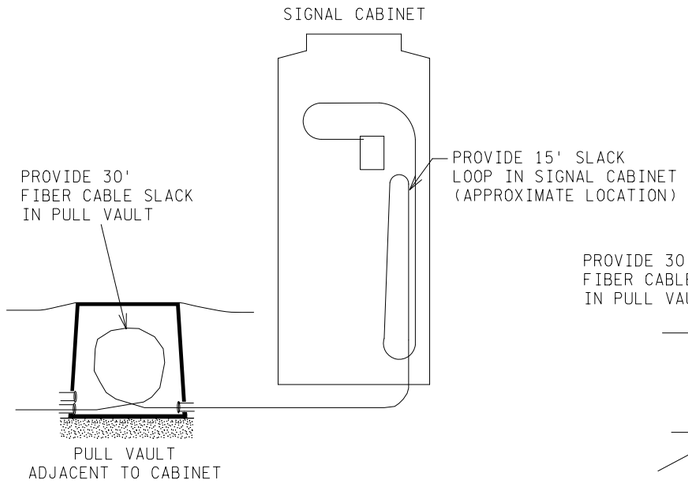


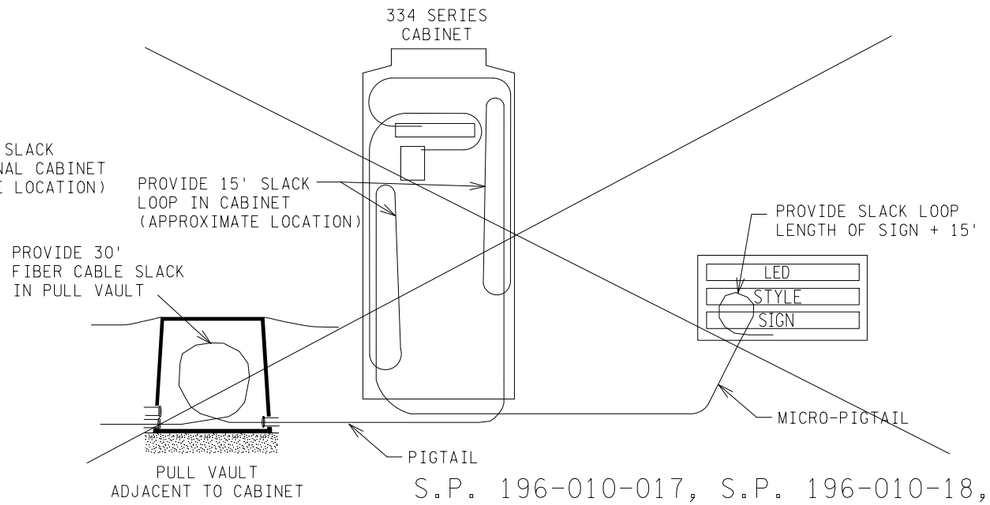


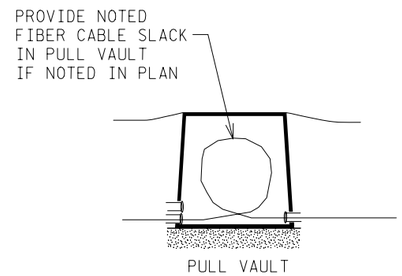












REVISED 3/06/20

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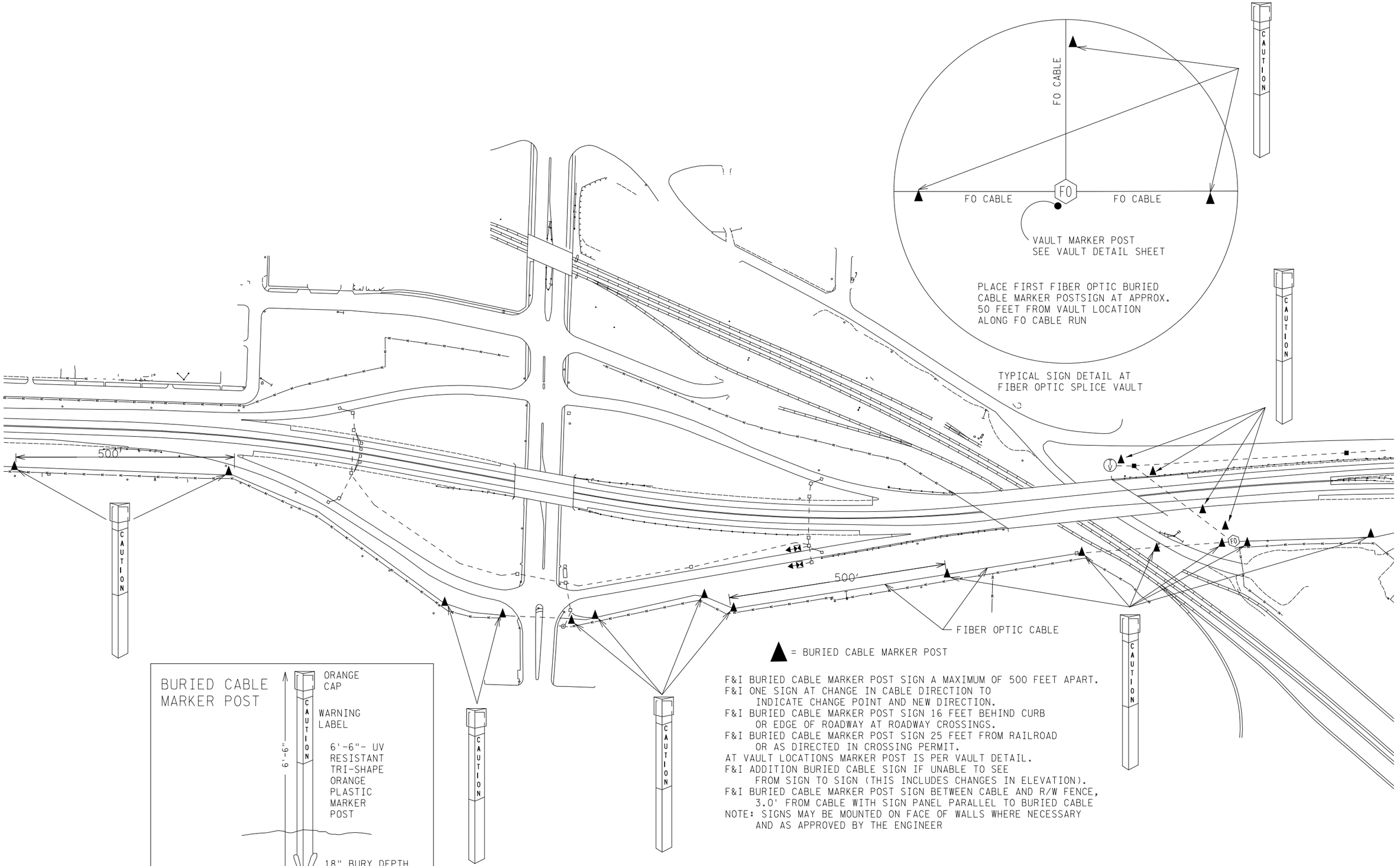
CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC.NO. 43957 FEB. 10 2022

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

TMS CABLE FIBER SLACK INSTALLATION DETAIL

STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ10 OF SZ17 SHEETS

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BURIED CABLE MARKER POST

F&I BURIED CABLE MARKER POST SIGN A MAXIMUM OF 500 FEET APART.
F&I ONE SIGN AT CHANGE IN CABLE DIRECTION TO INDICATE CHANGE POINT AND NEW DIRECTION.
F&I BURIED CABLE MARKER POST SIGN 16 FEET BEHIND CURB OR EDGE OF ROADWAY AT ROADWAY CROSSINGS.
F&I BURIED CABLE MARKER POST SIGN 25 FEET FROM RAILROAD OR AS DIRECTED IN CROSSING PERMIT.
AT VAULT LOCATIONS MARKER POST IS PER VAULT DETAIL.
F&I ADDITION BURIED CABLE SIGN IF UNABLE TO SEE FROM SIGN TO SIGN (THIS INCLUDES CHANGES IN ELEVATION).
F&I BURIED CABLE MARKER POST SIGN BETWEEN CABLE AND R/W FENCE, 3.0' FROM CABLE WITH SIGN PANEL PARALLEL TO BURIED CABLE
NOTE: SIGNS MAY BE MOUNTED ON FACE OF WALLS WHERE NECESSARY AND AS APPROVED BY THE ENGINEER

REVISED 4/07/20

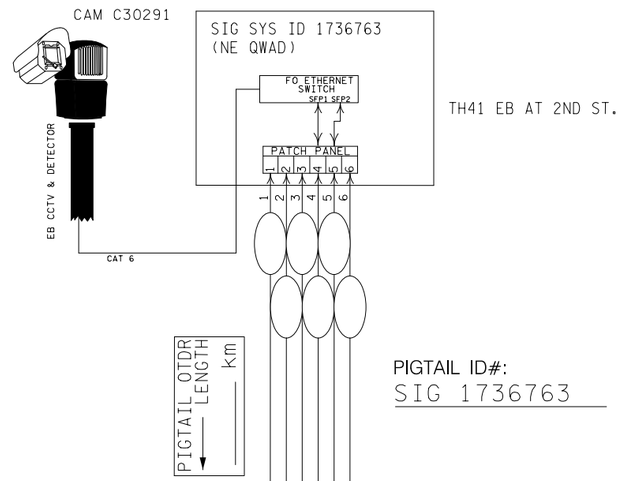
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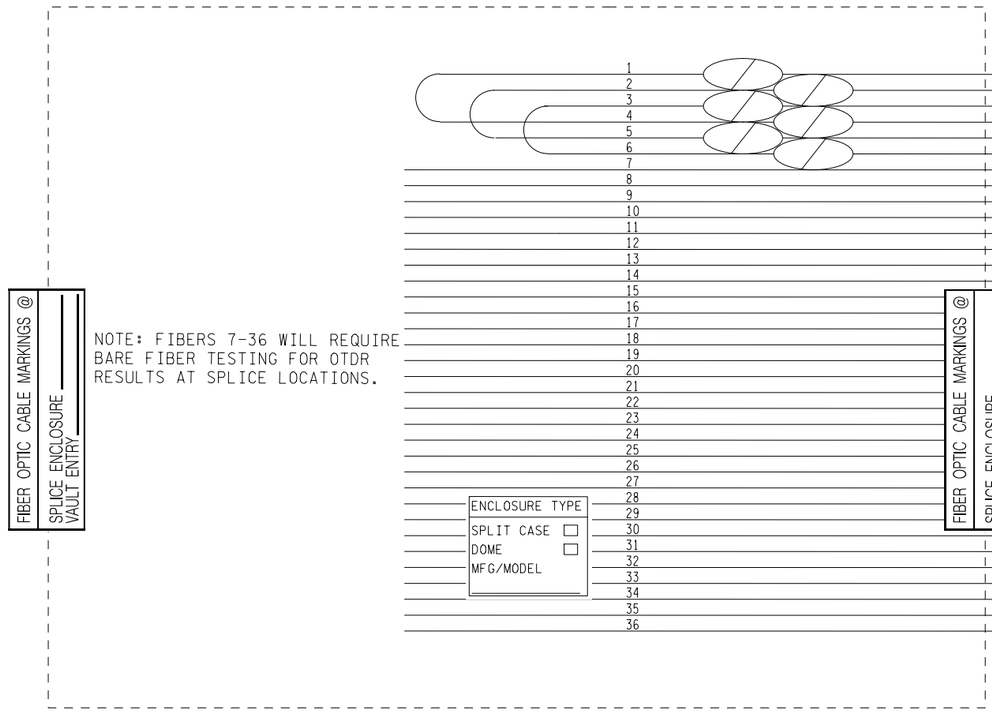
CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC.NO. 43957 FEB. 10 2022

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014 BURIED CABLE SIGN PLACEMENT TYPICAL

STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ11 OF SZ17 SHEETS

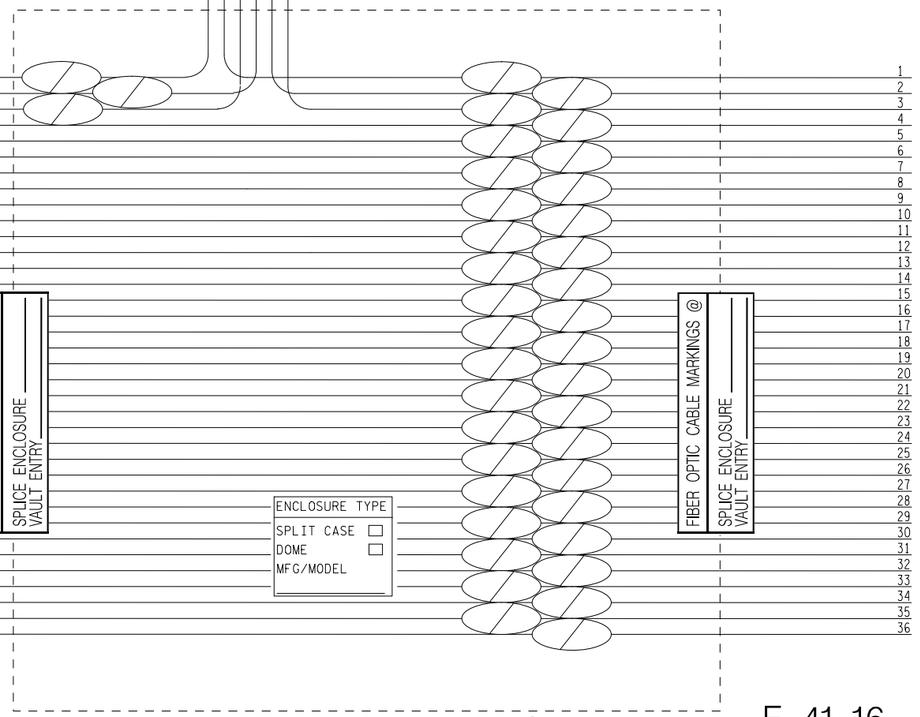
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F41–15

PULL VAULT TH41 NB SOUTH END OF RIVER BRIDGE



F 41–16

PULL VAULT TH41 NB AT 2ND ST

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

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CAM C30292

SIG SYS ID 1735307
(NE QWAD)

FO ETHERNET SWITCH
SFP1 SFP2

PATCH PANEL
1 2 3 4 5 6

TH41 EB AT 4TH ST.

EB CCTV & DETECTOR

CAT 6

PIGTAIL OTDR LENGTH ____ km

PIGTAIL ID#:
SIG 1735307

FIBER OPTIC CABLE MARKINGS @

SPLICE ENCLOSURE
VAULT ENTRY

ENCLOSURE TYPE
SPLIT CASE ☐
DOME ☐
MFG/MODEL

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

F 41–16 PULL VAULT TH41 NB AT 4TH ST

F 41–17

CAM C30293

SIG SYS ID 4344815
(NE QWAD)

FO ETHERNET SWITCH
SFP1 SFP2

PATCH PANEL
1 2 3 4 5 6

TH41 EB AT
CHASKA BLVD

EB CCTV & DETECTOR

CAT 6

PIGTAIL OTDR LENGTH ____ km

PIGTAIL ID#:
SIG 4344815

FIBER OPTIC CABLE MARKINGS @

SPLICE ENCLOSURE
VAULT ENTRY

ENCLOSURE TYPE
SPLIT CASE ☐
DOME ☐
MFG/MODEL

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

F 41–18 PULL VAULT TH41 EB AT WALNUT ST. S. F 41–19

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

REV NO. DATE: / /

CERTIFIED BY _____ LIC.NO. 43957 FEB. 10 2022
LICENSED PROFESSIONAL ENGINEER

STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ13 OF SZ17 SHEETS

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CAMERA ID # C30048

T.H. 41 AT CROSSTOWN BLVD

SIGNAL CONTROL CABINET 1736243

ETHERNET CABLE

FO ETHERNET TRANSPORT SFP1 SFP2

SIGNAL CONTROLLER

PATCH PANEL 1 2 3 4 5 6

PRE-TERMINATED CABLE END

SIG 1736243 6–SM

41–19

PULL VAULT

FIBER OPTIC CABLE MARKINGS @ VAULT ENTRY VAULT EXIT

41–20

CAMERA ID # C30049

T.H. 41 AT ENGLER BLVD

SIGNAL CONTROL CABINET 1735308

ETHERNET CABLE

FO ETHERNET TRANSPORT SFP1 SFP2

SIGNAL CONTROLLER

PATCH PANEL 1 2 3 4 5 6

PRE-TERMINATED CABLE END

SIG 1735308 6–SM

41–21

PULL VAULT

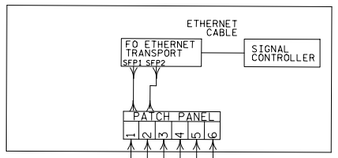
FIBER OPTIC CABLE MARKINGS @ VAULT ENTRY VAULT EXIT

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

REV. NO.	DATE: / /	CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC.NO. 43957 FEB. 10 2022	STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ14 OF SZ17 SHEETS

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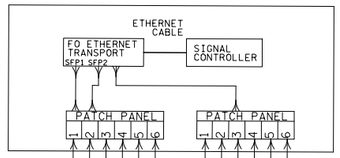
T.H. 41 AT
CANYON ROAD
SIGNAL CONTROL
CABINET 1736617



PRE-TERMINATED CABLE END

SIG 1736617 6-SM

T.H. 41 AT
T.H. 212 SOUTH RAMP
SIGNAL CONTROL
CABINET 1736529

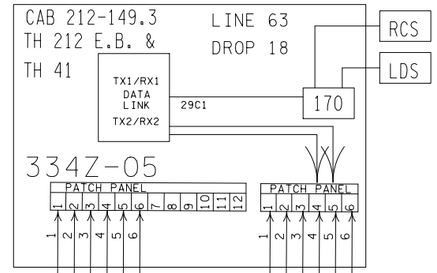


PRE-TERMINATED CABLE END

PRE-TERMINATED CABLE END
6-SM FROM SIGNAL CABINET
TO RTMC CABINET

SIG 1736529 6-SM

RTMC CABINET
NUMBER 334



TO RTMC TRUNK PIGTAIL ID. 149.30

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

INPLACE PULL VAULT

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

41–21
41–22
41–23
1 2 3 4 5 6

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

PULL VAULT

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

PULL VAULT

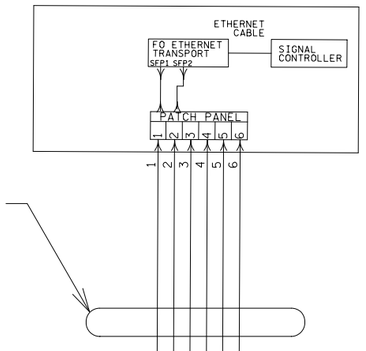
FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

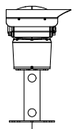
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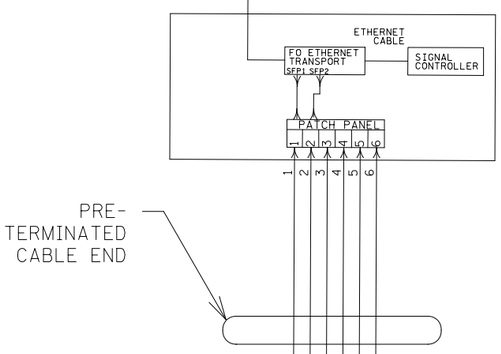
T.H. 41 AT
T.H. 212 NORTH RAMP
SIGNAL CONTROL
CABINET 1736528

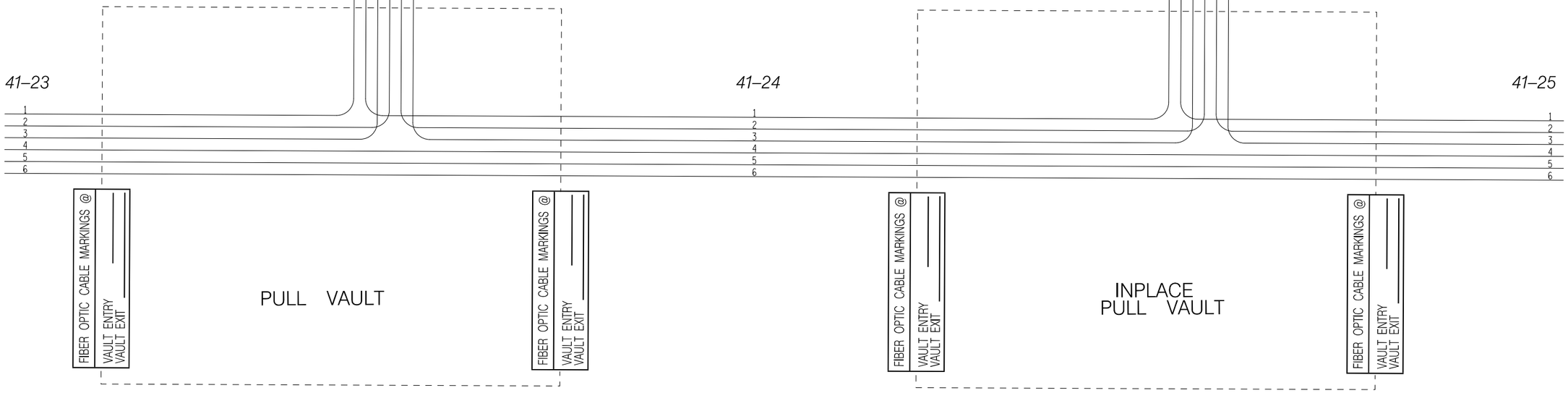


CAMERA ID # C30050



T.H. 41 AT
HUNDERMARK ROAD
SIGNAL CONTROL
CABINET 1993236





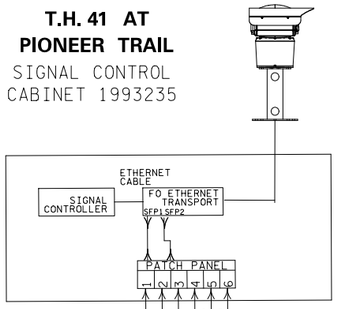
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CAMERA ID # C30051

T.H. 41 AT
PIONEER TRAIL
SIGNAL CONTROL
CABINET 1993235

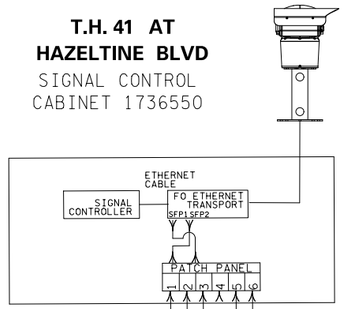


PRE-TERMINATED CABLE END

SIG 1993235 6-SM

CAMERA ID # C30052

T.H. 41 AT
HAZELTINE BLVD
SIGNAL CONTROL
CABINET 1736550



PRE-TERMINATED CABLE END

SIG 1736550 6-SM

41–25

41–26

1
2
3
4
5
6

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

INPLACE
PULL VAULT

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

FIBER OPTIC CABLE MARKINGS @
VAULT ENTRY
VAULT EXIT

PULL VAULT

S.P. 196-010-017, S.P. 196-010-18, S.P. 196-020-014

REV. NO.	DATE: / /	CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER	LIC.NO. 43957 FEB. 10 2022	STATE PROJ. NO. 1008-87 (TH 41) SHEET NO. SZ17 OF SZ17 SHEETS

GENERAL NOTES

1. TYPICAL STRUCTURAL DETAILS AND NOTES SHALL APPLY UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. EXAMINE SITE AND DRAWINGS TO DETERMINE LOCATIONS AND DIMENSIONS OF UTILITIES, AND SITE IMPROVEMENTS.
3. BEFORE CONSTRUCTION FABRICATION AND ERECTION OF ANY MATERIALS, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING ELEVATIONS, DIMENSIONS AND CONDITIONS AS SHOWN ON THE DRAWINGS AND REPORT DISCREPANCIES TO THE ENGINEER AT ONCE FOR RESOLUTION.
4. THE STRUCTURAL DESIGN IS BASED ONLY ON THE STRUCTURE IN ITS COMPLETED STATE. CONTRACTORS AND THEIR SUBCONTRACTORS SHALL TAKE WHATEVER PRECAUTIONS ARE NECESSARY TO WITHSTAND ALL HORIZONTAL AND VERTICAL LOADING THAT MAY BE ENCOUNTERED DURING THE CONSTRUCTION PROCESS PRIOR TO THE COMPLETION OF THE STRUCTURE.
5. WRITTEN DISTANCES & ELEVATIONS SHALL GOVERN OVER SCALED DISTANCES & ELEVATIONS.

MATERIAL NOTES:

REINFORCED CONCRETE:	
CONCRETE:	4000 PSI @ 28 DAYS
GROUT:	5000 PSI @ 28 DAYS
EUCLID EUCOCRETE OR APPROVED EQUAL	
NON-SHRINK GROUT:	ASTM C1107
EUCLID NC GROUT OR APPROVED EQUAL	
REINFORCEMENT BARS:	
DEFORMED BARS	ASTM A615, GRADE 60
STRUCTURAL STEEL MATERIALS	
WIDE FLANGE SHAPES	ASTM A992, Fy = 50 KSI
HOLLOW STRUCTURAL SECTIONS	
TUBES	ASTM A500, GRADE B, Fy = 46 KSI
STEEL PIPE	ASTM A53, GRADE B, Fy = 35 KSI
OTHER STEEL SHAPES	ASTM A36, Fy = 36 KSI
STRUCTURAL BOLTS	ASTM F3125, Grade A325
ANCHOR ROD	ASTM F1554, GRADE 36
WELD FILLER MATERIAL	70 KSI

STEEL NOTES:

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH THE LATEST AISC SPECIFICATION PARTS 1 THRU 4 AND THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
2. ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS. ALL WELDING SHALL BE PERFORMED WITH FILLER METAL HAVING A MINIMUM TENSILE STRENGTH OF 70 KSI. WELDING SHALL CONFORM TO THE PROVISIONS OF THE LATEST STRUCTURAL WELDING CODE (AWS D1.1).
3. ALL WELDING SHALL BE BY WELDERS HOLDING CURRENT VALID CERTIFICATES IN THE TYPE OF WELDING REQUIRED.
4. REPAIR ALL DAMAGED GALVANIZED SURFACES IN ACCORDANCE WITH ASTM A780.
5. ANCHOR BOLTS EMBEDDED IN CONCRETE SHALL BE ACCURATELY POSITIONED WITH A TEMPLATE AND SECURED TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT OPERATIONS.

CONCRETE NOTES:

1. LAP SPLICES AND 90 DEGREE END HOOKS SHALL BE AS SHOWN BELOW UNLESS NOTED. WHEN BARS OF TWO DIFFERENT SIZES ARE SPLICED, THE LONGER LAP LENGTH SHALL APPLY.

F'C=4000 PSI	SLAB, WALL, COLUMN		BEAM		90 DEGREE HOOK
BAR SIZE	BAR LAP	TOP BAR	BAR LAP	TOP BAR	
#3	19 IN.	24 IN.	28 IN.	36 IN.	6 IN.
#4	25 IN.	32 IN.	37 IN.	48 IN.	8 IN.
#5	31 IN.	40 IN.	46 IN.	60 IN.	10 IN.
#6	37 IN.	48 IN.	56 IN.	72 IN.	12 IN.

*TOP BAR LAP SPLICES ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 IN. OF CONCRETE IS CAST IN THE MEMBER BELOW THE SPLICE

2. REINFORCING BARS SHALL HAVE THE FOLLOWING CONC. COVER UNLESS NOTED OTHERWISE.

FOOTINGS AND OTHER UNFORMED SURFACES	3"
CONCRETE EXPOSED TO EARTH, WEATHER OR FLUIDS	
#6 BARS OR LARGER	2"
#5 BARS OR SMALLER	1-1/2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
BEAMS, COLUMNS, TIES, SPIRALS AND STIRRUPS	1-1/2"
SLABS, WALLS & JOISTS	3/4"

3. CONCRETE SHALL BE PLACED WITHOUT CONSTRUCTION JOINTS EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER.
4. CAST-IN-PLACE CONCRETE SHALL NOT BE PLACED IN STANDING WATER, ON FROZEN SOIL OR ON FROZEN CONCRETE.
5. BEVEL ALL EXPOSED CORNERS OF CONCRETE 3/4" x 3/4".

DESIGN CRITERIA & LOADING

1. CODE: 2018 INTERNATIONAL BUILDING CODE (IBC), AS AMENDED BY THE 2020 MINNESOTA STATE BUILDING CODE (MSBC).
2. DESIGN LOADING

DEAD LOADS (D)

MATERIALS	CALCULATED

LIVE LOADS (L)

FLOOR	
STAIRS & LANDINGS	100 PSF
GRATING & GRATING PLATFORMS	100 PSF
FIRE ESCAPE	100 PSF

SNOW LOADS (S)

P_g	GROUND SNOW LOAD	50 PSF
P_f	FLAT-ROOF SNOW LOAD	37.8 PSF
C_e	SNOW EXPOSURE FACTOR	0.9
I_s	SNOW LOAD IMPORTANCE FACTOR	1.0
C_t	THERMAL FACTOR	1.2
p_d	DRIFT SURCHARGE LOAD(S)	74.7 PSF
w	WIDTH OF SNOW DRIFTS	3 FT

EXCAVATION NOTES:

1. TEMPORARY GROUND CONTROL IS BY CONTRACTOR DESIGN.
2. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY SHEETING AND BRACING NECESSARY TO PROTECT PERSONNEL AND ADJACENT PROPERTY FROM INJURY OR DAMAGE DURING CONSTRUCTION OPERATION.
3. EXCAVATIONS OR TRENCHING WITHIN CLOSE PROXIMITY TO UNDERGROUND STRUCTURES, UTILITIES, OR UTILITY POLES WILL REQUIRE PROTECTION AND SUPPORT TO PREVENT DAMAGE OR INTERRUPTION TO SERVICE. THE COST TO PROVIDE THIS PROTECTION SHALL BE INCLUDED IN THE CONTRACTOR'S TOTAL BASE BID PRICE.

FOUNDATION AND SOIL NOTES:

1. THE GEOTECHNICAL ENGINEER SHALL REVIEW AND APPROVE FOUNDATION BEARING SURFACES PRIOR TO THE PLACEMENT OF FOOTINGS OR FOUNDATION.
2. PROVIDE A MINIMUM OF 3'-6" OF SOIL COVER AT ALL HEATED STRUCTURE EXTERIOR WALL FOOTINGS. PROVIDE A MINIMUM OF 5'-0" OF SOIL COVER AT ALL UNHEATED STRUCTURE FOOTINGS.
3. PROTECT FOUNDATION SOILS FROM FREEZING DURING CONSTRUCTION.
4. PLACE FILL AND BACKFILL AND COMPACT TO FOLLOWING MAXIMUM STANDARD PROCTOR DENSITIES UNLESS NOTED OTHERWISE IN THE SPECIFICATIONS:

LOCATION	DENSITY
FILL BELOW FOOTINGS	100%
FILL BELOW SLABS ON GRADE	98%
PIPE AND STRUCTURE EXCAVATIONS	95%
GREEN SPACES	90%

5. SOIL BEARING PRESSURES:
   NET ALLOWABLE SOIL BEARING PRESSURE: 1,500 PSF (ASSUMED)

DELEGATED DESIGN NOTES:

1. STAIRS TO BE DELEGATED BY CONTRACTOR BASED ON FINAL GRADE. A MAXIMUM RISE:RUN SHALL BE 8:10, REFER TO SHEET S8 FOR DESIGN INTENT.
2. THE HANDRAIL IS TO CONFORM TO THE HANDRAIL AND GAURD SECTIONS OF IBC 2018.
3. HANRAILS AND GUARDS MUST BE ABLE TO WITHSTAND UNIFORM LOAD OF 50 LBS/FT OR A CONCENTRATED LOAD OF 200 LBS PLACED AT THE TOP OF THE HANDRAIL OR GUARD. INFILL AREAS MUST BE ABLE TO WITHSTAND A LOAD OF 50 PSF.

210 CHESTNUT - PLATFORM REPLACEMENT - S.P. 1008-87			Z
ITEM NUMBER	**ITEM LONG DESCRIPTION**	**UNIT TOTAL**	**UNIT NAME**
2402	STRUCTURAL STEEL (3306)	1,035.7	LB
2402	STRUCTURAL STEEL (3309)	11,544.3	LB
2475	STRUCTURAL TUBE RAILING	145.3	L F
2411	REINFORCEMENT BARS	1,391.2	LB
2401	STEEL FABRIC	70.0	LB
2411	STRUCTURAL CONCRETE (3G52)	16.7	C Y

METAL DECKING TO BE INCIDENTAL WITH THE PLATFORM

NEW WORK IN CONJUNCTION WITH EXISTING CONSTRUCTION:

1. THE CONTRACTOR SHALL VERIFY BY FIELD VERIFYING, ALL SIZES, DIMENSIONS, ELEVATIONS, LOCATIONS, ETC. OF ELEMENTS OF THE EXISTING CONSTRUCTION WHICH ARE RELATIVE TO THE NEW CONSTRUCTION PRIOR TO COMMENCING RELATED TO NEW WORK.
2. ALL DIMENSIONS INVOLVING NEW WORK TYING INTO OR GOVERNED BY EXISTING CONSTRUCTION SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND FURNISHED TO THE SUBCONTRACTOR PRIOR TO FABRICATION OF ANY WORK. THE VERIFIED DIMENSIONS SHALL APPEAR AND BE NOTED AS SUCH ON THE FIRST SHOP DRAWING SUBMITTED.
3. THE ENGINEER HAS MADE ASSUMPTIONS CONCERNING THE SOUNDNESS OF THE EXISTING BUILDING AND THESE ASSUMPTIONS ARE THAT THIS BUILDING WAS DESIGNED AND CONSTRUCTED IN CONFORMITY WITH GOOD DESIGN AND CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL TAKE PRECAUTIONS CONCERNING PRESERVATION OF THE BUILDING DURING DEMOLITION AND NEW CONSTRUCTION WORK. FURTHER THEY SHALL AGREE TO ASSUME ALL RESPONSIBILITY FOR THE PRESERVATION OF THIS PROPERTY.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.
5. ALL HOLES THROUGH EXISTING CONCRETE OR MASONRY CONSTRUCTION SHALL BE CORED DRILLED OR SAW CUT. NEW OPENINGS MUST BE MADE WITH ENGINEER'S APPROVAL.
6. CUTTING OF EXISTING STRUCTURAL STEEL IS PROHIBITED WITHOUT APPROVAL FROM THE ENGINEER OF RECORD.

STEEL FLOOR DECK NOTES:

1. THE FLOOR DECK SHALL BE AS INDICATED ON DRAWINGS.
2. THE FLOOR DECK SHALL BE FASTENED TO SUPPORTING STEEL IN ACCORDANCE WITH THE PROJECT MANUAL.
3. THE CONCRETE SLAB OVER THE FLOOR DECK SHALL BE REINFORCED AS NOTED ON THE DRAWINGS.
4. PROVIDE CLOSURE PLATES FOR DECK AT EDGES OF ALL CONCRETE UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO PROVIDE ADDITIONAL ANGLES TO SUPPORT DECKING AT AREAS WHERE DECK IS CUT FOR COLUMNS OR OTHER PENETRATIONS TO INSURE NO WEAKENED AREAS IN DECKING.
6. SCREED THE CONCRETE TO THE DECK . DO NOT USE LASER SCREEDS UNLESS APPROVED BY THE ARCHITECT.
7. PROVIDE GALVANIZED DECK IN ALL AREAS.
8. ALL WELDING OF DECK SHALL BE IN STRICT ACCORDANCE WITH ANSI/AWS D1.3, STRUCTURAL WELDING CODE-SHEET STEEL.
9. A MINIMUM VISIBLE 5/8" DIAMETER ARC PUDDLE WELD SHALL BE USED. WELD METAL SHALL PENETRATE ALL LAYERS OF DECK MATERIAL, AND SHALL HAVE GOOD FUSION TO THE SUPPORTING MEMBERS.
10. EDGE RIBS OF PANELS SHALL BE WELDED AT EACH SUPPORT. SPACE ADDITIONAL WELDS AN AVERAGE OF 12 INCHES APART BUT NOT MORE THAN 18 INCHES.

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DAVID J. STARK
LIC. NO. 52632 DATE 03/11/2022

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www.bolton-menk.com

DESIGNED	GGB
DRAWN	GGB
CHECKED	DJS
CLIENT PROJ. NO	0T4.123211

NO.	ISSUED FOR	DATE

GENERAL STRUCTURAL NOTES

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014

T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

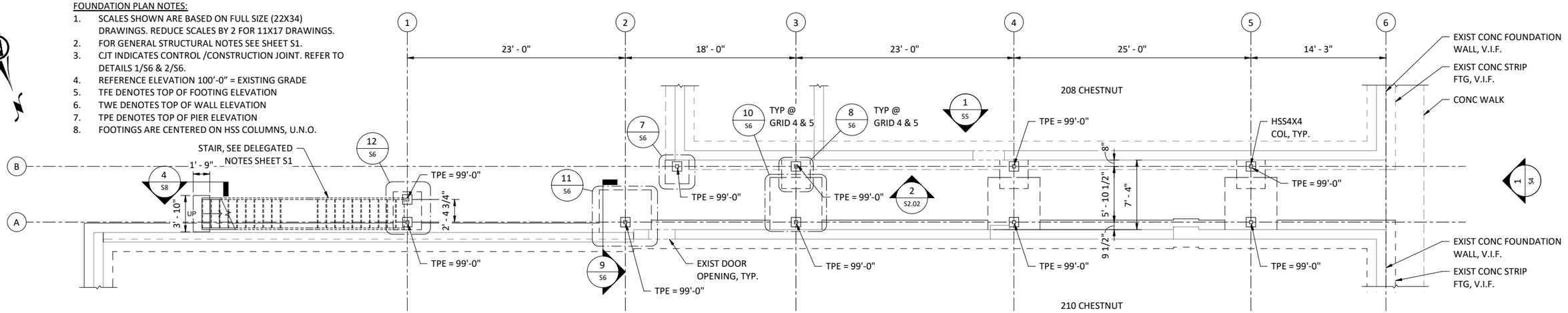
PLATFORM REPLACEMENT PLAN

SHEET S1

Packet Page 174 of...
7.B. Adopt Resolution 2022-48, Approve...
Page 443 of...

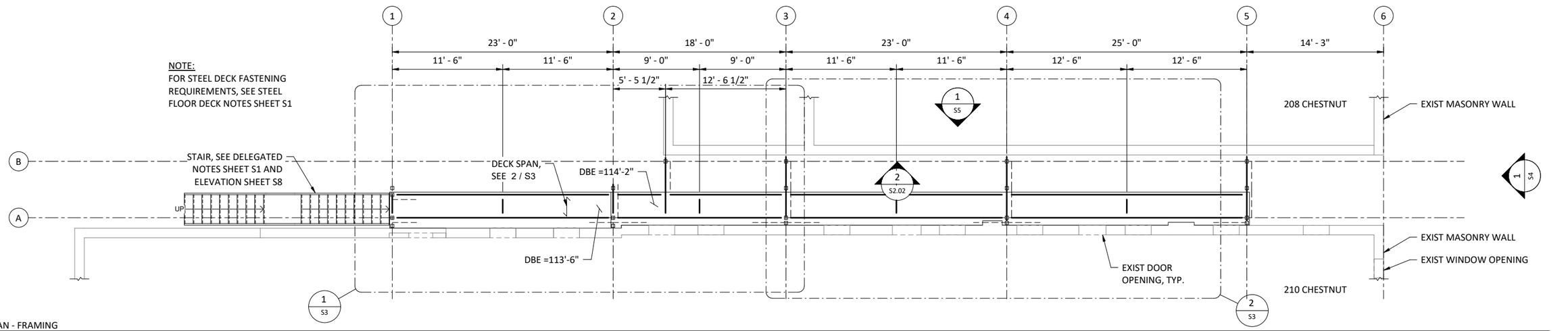
FOUNDATION PLAN NOTES:

1. SCALES SHOWN ARE BASED ON FULL SIZE (22X34) DRAWINGS. REDUCE SCALES BY 2 FOR 11X17 DRAWINGS.
2. FOR GENERAL STRUCTURAL NOTES SEE SHEET S1.
3. CJT INDICATES CONTROL /CONSTRUCTION JOINT. REFER TO DETAILS 1/S6 & 2/S6.
4. REFERENCE ELEVATION 100'-0" = EXISTING GRADE
5. TFE DENOTES TOP OF FOOTING ELEVATION
6. TWE DENOTES TOP OF WALL ELEVATION
7. TPE DENOTES TOP OF PIER ELEVATION
8. FOOTINGS ARE CENTERED ON HSS COLUMNS, U.N.O.

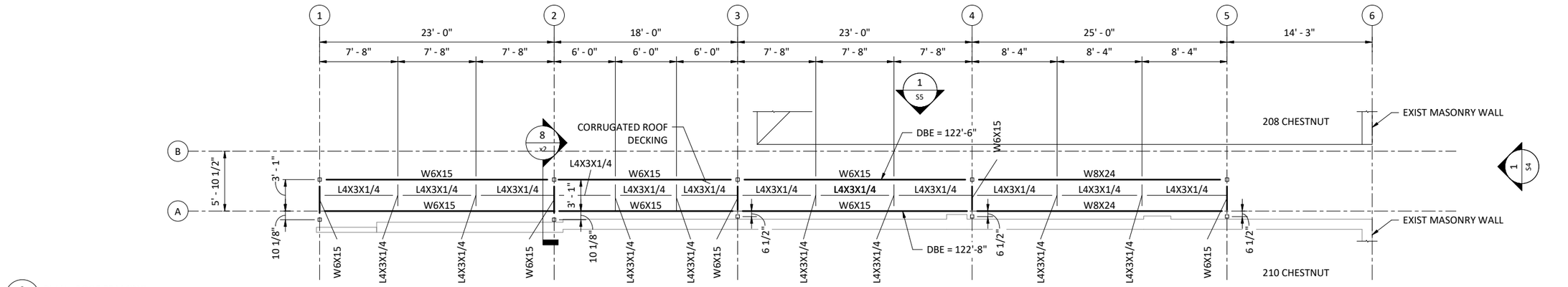


1 S2 PLAN - FOUNDATION
3/16" = 1'-0"

NOTE:
FOR STEEL DECK FASTENING REQUIREMENTS, SEE STEEL FLOOR DECK NOTES SHEET S1



2 S2 PLAN - FRAMING
3/16" = 1'-0"



3 S2 PLAN - ROOF FRAMING
3/16" = 1'-0"

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DAVID J. STARK
LIC. NO. 52632 DATE 03/11/2022

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CLIENT PROJ. NO			
0T4.123211			

PLANS

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

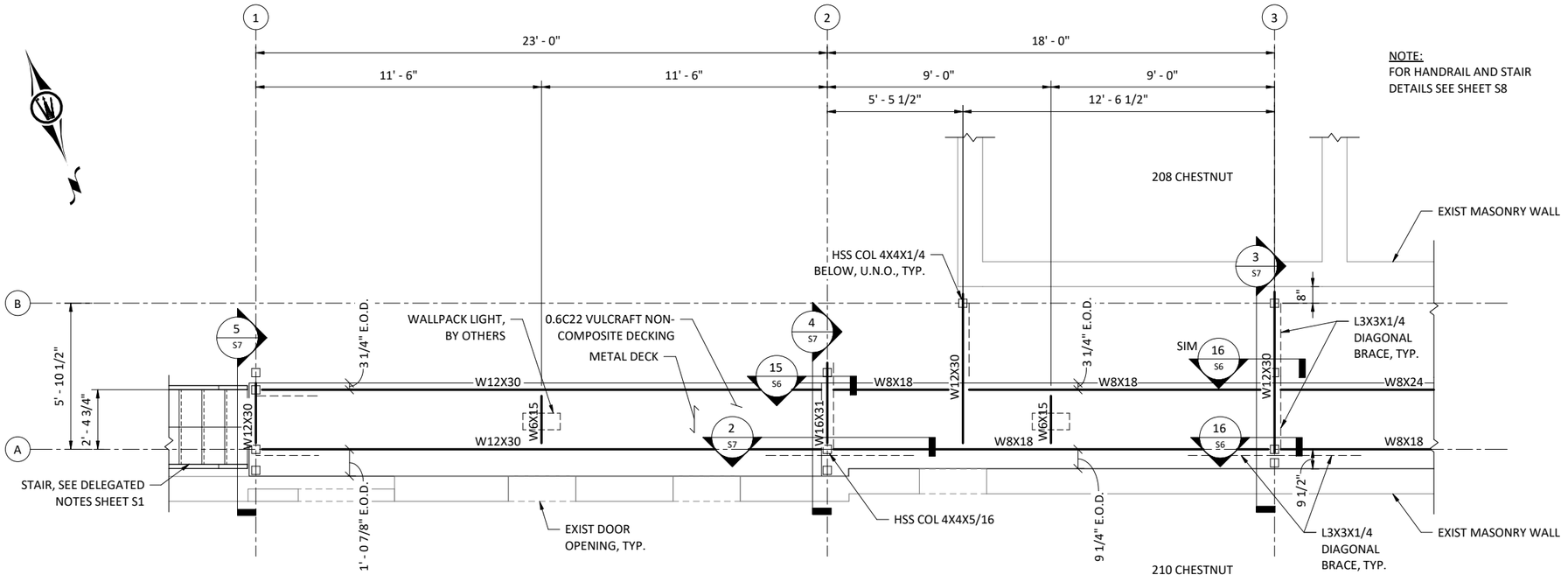
PLATFORM REPLACEMENT PLAN

SHEET S2

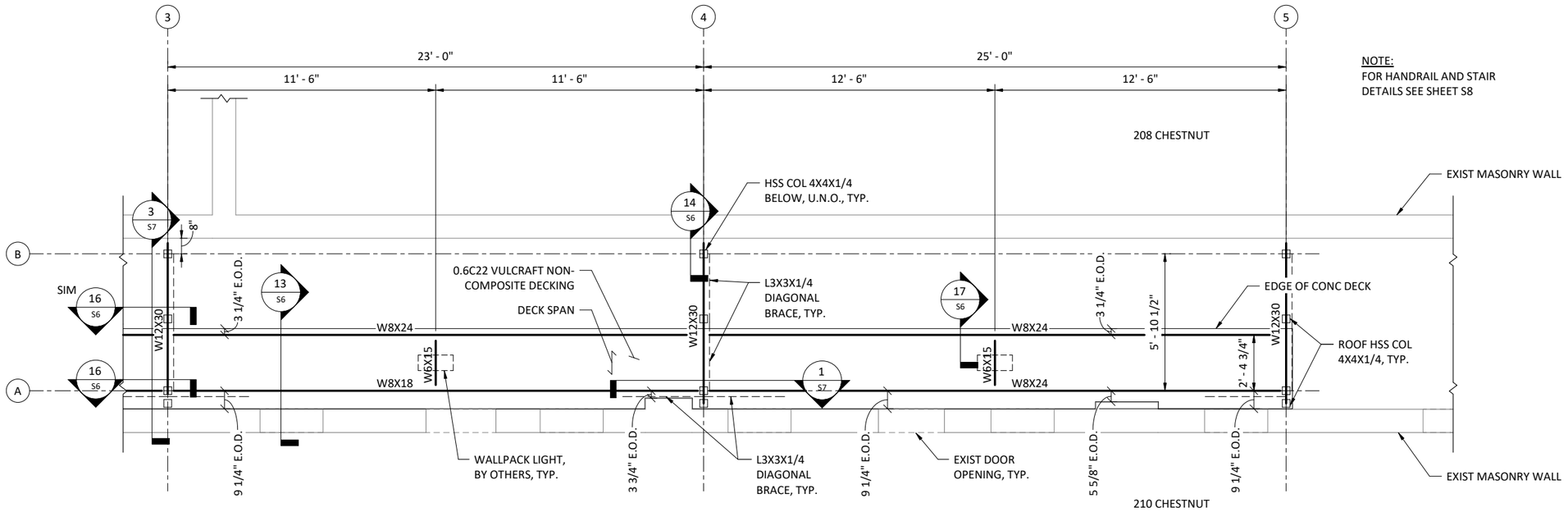
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FRAMING PLAN NOTES:

1. SCALES SHOWN ARE BASED ON FULL SIZE (22X34) DRAWINGS. REDUCE SCALES BY 2 FOR 11X17 DRAWINGS.
2. FOR GENERAL STRUCTURAL NOTES SEE SHEET S1.
3. REFERENCE ELEVATION 100'-0" = SEE CIVIL
4. ROOF FRAMING PLAN SHOWN OVER FIRST FLOOR WALLS



1 S3 PLAN - FRAMING GRID 1-3
3/8" = 1'-0"



2 S3 PLAN - FRAMING GRID 3-5
3/8" = 1'-0"

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DAVID J. STARK
LIC. NO. 52632 DATE 03/11/2022

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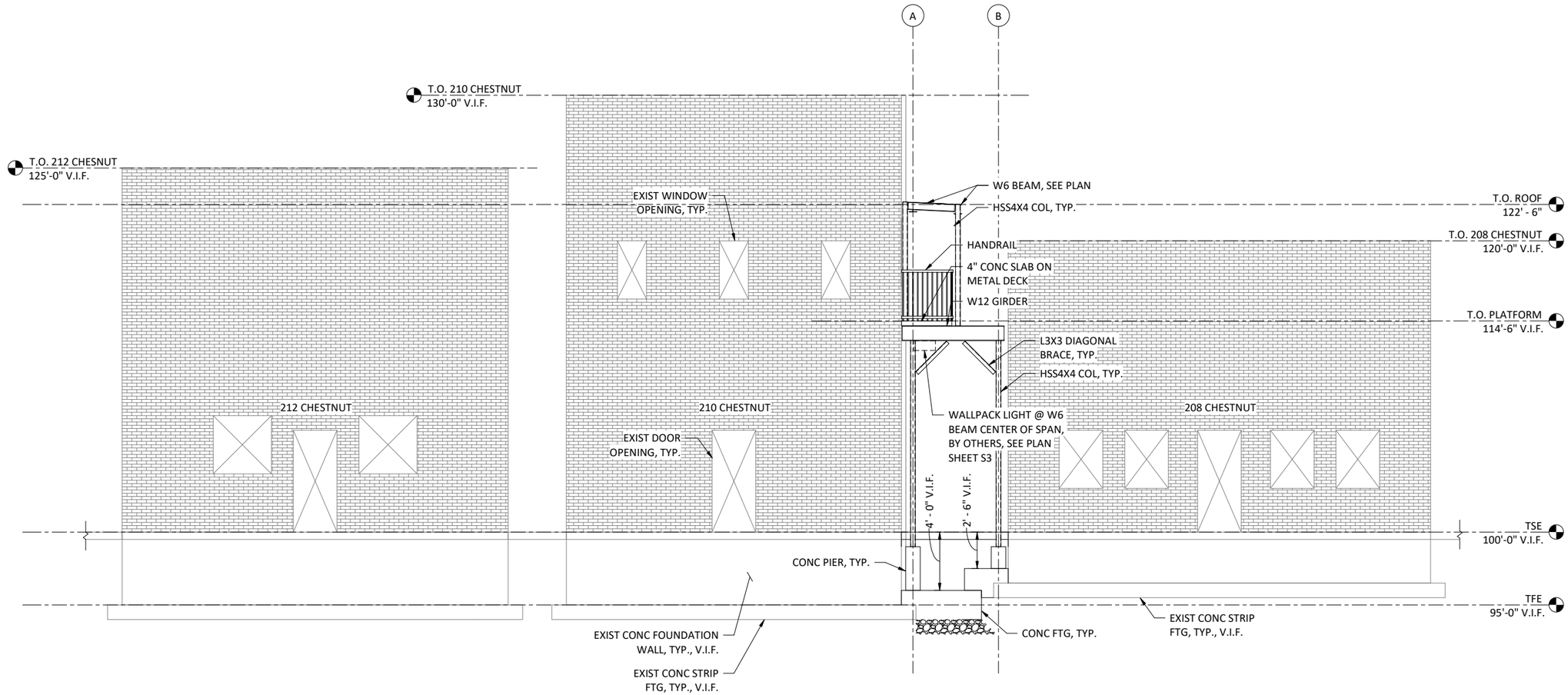
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
PLATFORM REPLACEMENT PLAN

SHEET S3



1 / S4 ELEVATION - BUILDING FACE
1/4" = 1'-0"

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DAVID J. STARK
LIC. NO. 52632 DATE 03/11/2022

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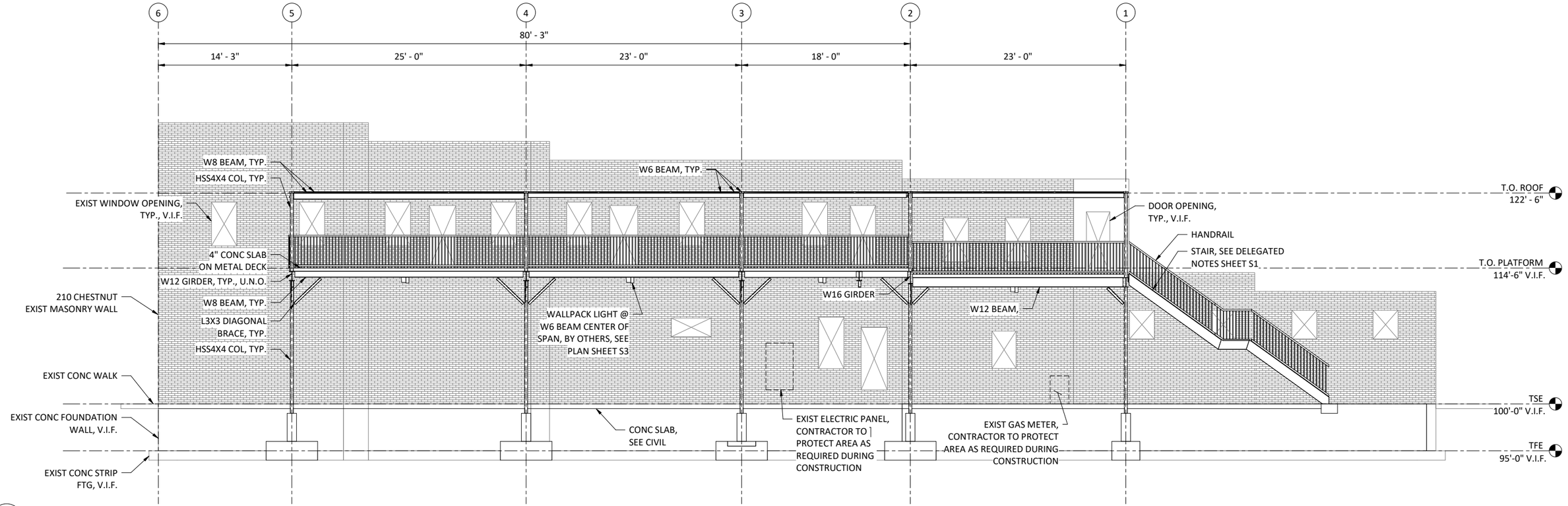
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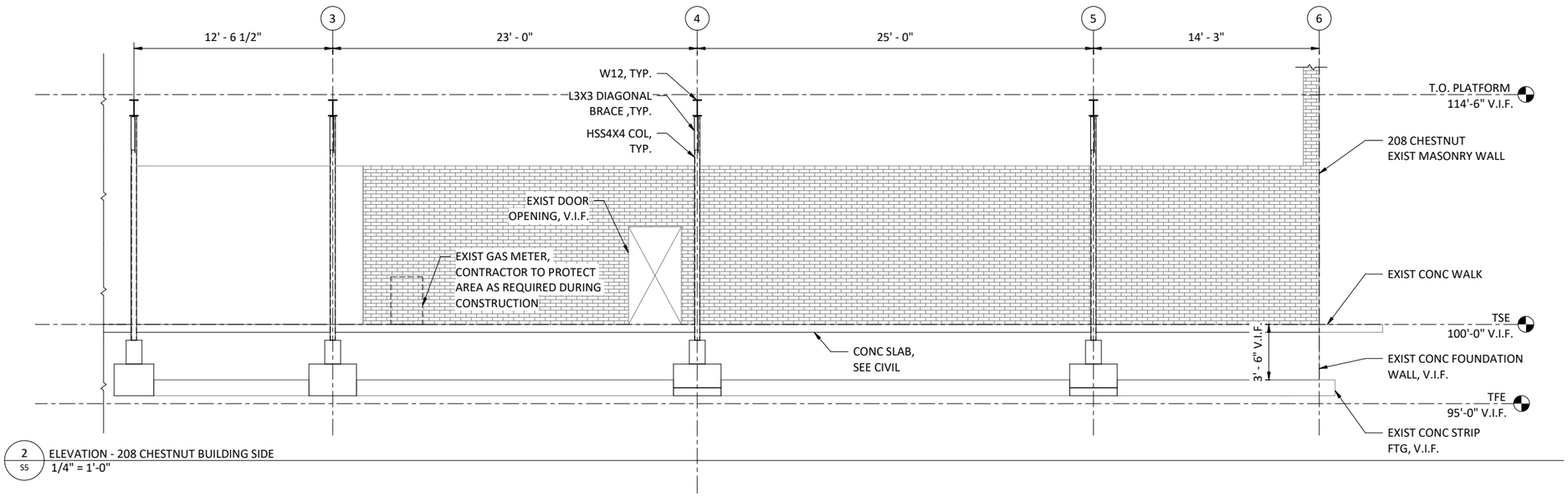
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S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
PLATFORM REPLACEMENT PLAN

SHEET S4

7.B. Adopt Resolution 2022-48, Approve...
Packet Page 446 of...
Page 446 of...



1 SS ELEVATION - 210 CHESTNUT BUILDING SIDE
3/16" = 1'-0"



2 SS ELEVATION - 208 CHESTNUT BUILDING SIDE
1/4" = 1'-0"

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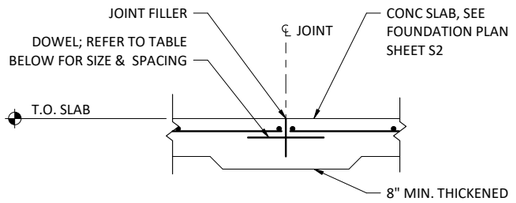
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
PLATFORM REPLACEMENT PLAN

SHEET S5

NOTE: SEE FOUNDATION PLAN SHEET S2 FOR JOINT LOCATIONS, SLAB THICKNESS AND REINFORCEMENT. ALL SLABS ON GRADE - SAWCUT JOINT

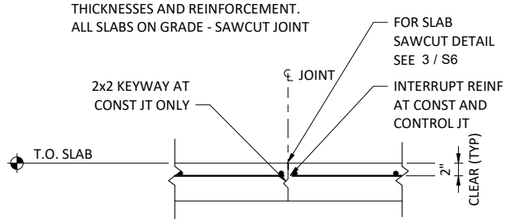


DOWEL SIZE & SPACING FOR CONSTRUCTION JOINTS						
	DOWEL DIMENSIONS			DOWEL SPACING (CENTER-TO-CENTER)		
SLAB DEPTH	ROUND	SQUARE	PLATE DOWEL	ROUND	SQUARE	PLATE DOWEL
5" TO 6"	3/4"Ø x 10"	3/4" x 10"	M/R*	12"	14"	18"
7" TO 8"	1"Ø x 13"	1" x 13"	M/R*	12"	14"	18"
9" TO 11"	1 1/4"Ø x 15"	1 1/4" x 15"	M/R*	12"	12"	18"

*M/R = MANUFACTURER'S RECOMMENDATIONS. BECAUSE OF THE VARIOUS PLATE DOWEL GEOMETRIES AND INSTALLATION DEVICES AVAILABLE FROM DIFFERENT MANUFACTURERS, THE MANUFACTURERS SHOULD BE CONSULTED FOR THEIR RECOMMENDED PLATE DOWEL SIZE.

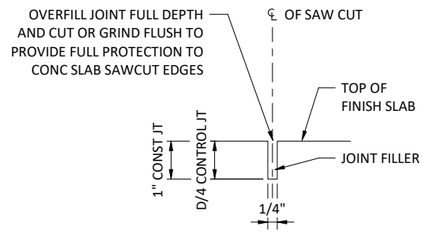
1 S6 DETAIL - TYP SLAB CONSTRUCTION JOINT
1" = 1'-0"

NOTE: SEE FOUNDATION PLAN SHEET S2 FOR JOINT LOCATIONS, SLAB THICKNESSES AND REINFORCEMENT. ALL SLABS ON GRADE - SAWCUT JOINT

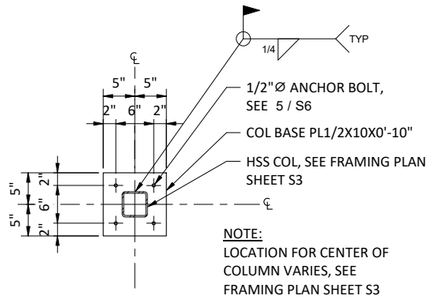


TYPICAL CONTROL JOINT SPACING & JOINT DEPTH		
REINFORCED SLAB DEPTH	PREFERRED SPACING	CONTROL JOINT DEPTH (MIN.)
4"	8' TO 12'	1"
5"	10' TO 15'	1.25"
6"	12' TO 18'	1.5"
7"	14' TO 21'	1.75"
≥ 8"	16' TO 24'	2"
REFER TO CONTROL JOINT PLACEMENT GUIDE FOR ADDITIONAL CONTROL JOINT INFORMATION		

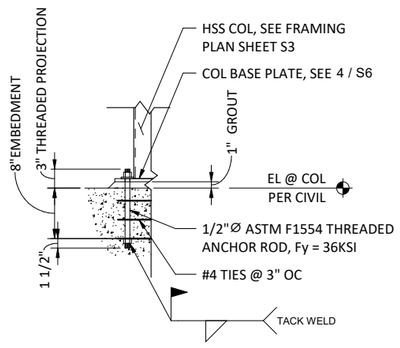
2 S6 DETAIL - TYP SLAB CONTROL JOINT
1" = 1'-0"



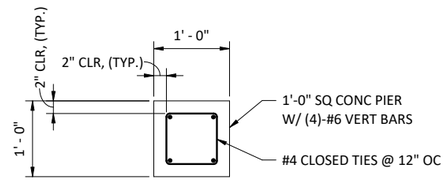
3 S6 DETAIL - INDUSTRIAL SAW CUT
6" = 1'-0"



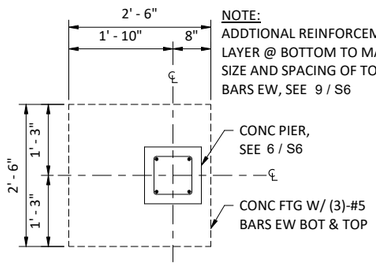
4 S6 DETAIL - TYP COLUMN BASE PLATE
1" = 1'-0"



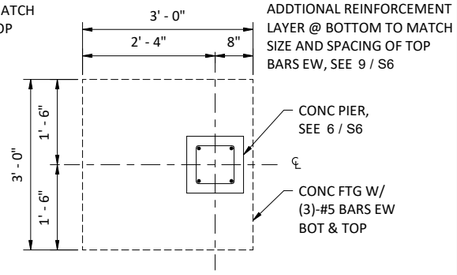
5 S6 DETAIL - TYPICAL ANCHOR BOLT
1" = 1'-0"



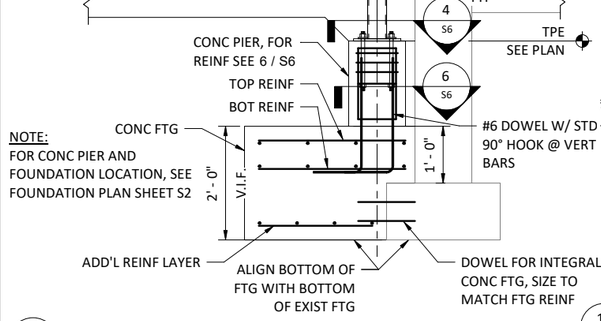
6 S6 DETAIL - TYP CONC PIER
1" = 1'-0"



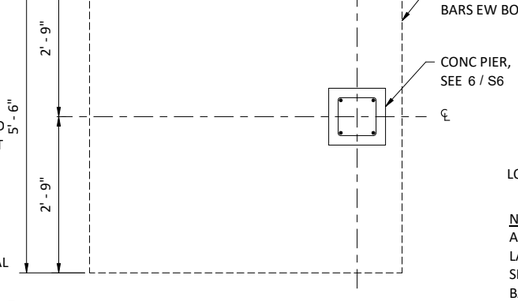
7 S6 DETAIL - REINF CONC FTG BETWEEN GRID 2 & 3
3/4" = 1'-0"



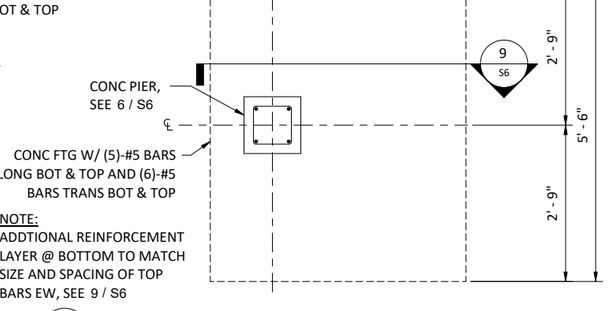
8 S6 DETAIL - TYP REINF CONC FTG @ COL LINE B
3/4" = 1'-0"



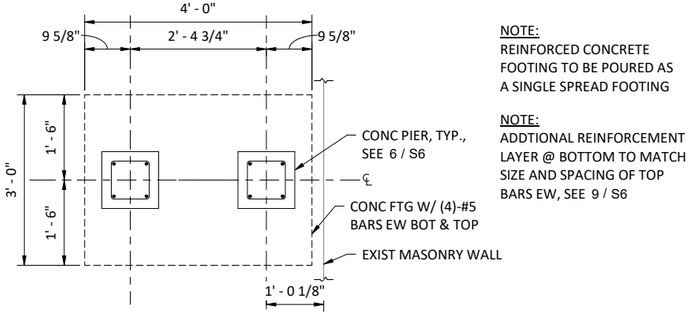
9 S6 DETAIL - CONCRETE INTEGRAL FOOTING
3/4" = 1'-0"



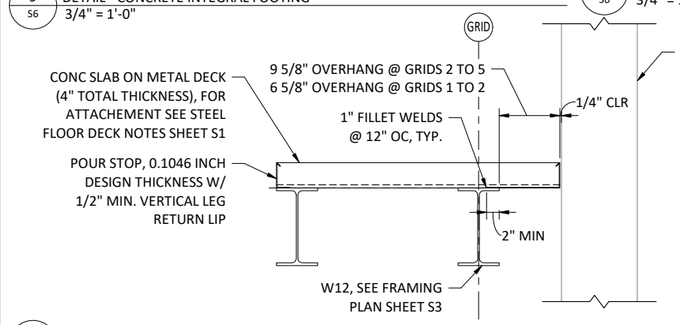
10 S6 DETAIL - TYP REINF CONC FTG @ COL LINE A
3/4" = 1'-0"



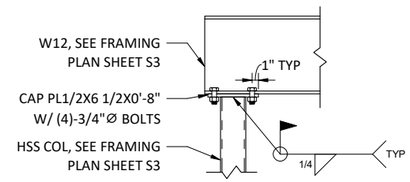
11 S6 DETAIL - REINF CONC FTG @ GRID 2
3/4" = 1'-0"



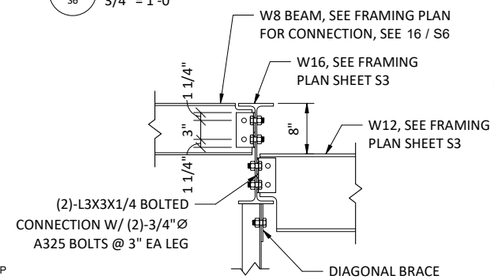
12 S6 DETAIL - REINF CONC FTG @ GRID 1
3/4" = 1'-0"



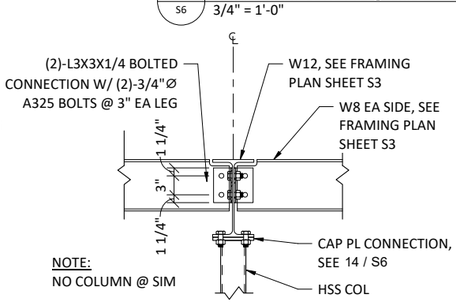
13 S6 DETAIL - TYPICAL CONC SLAB ON METAL DECK
1" = 1'-0"



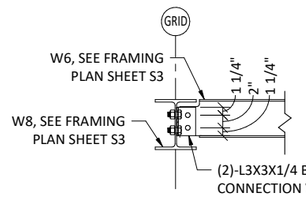
14 S6 DETAIL - TYP CAP PLATE CONNECTION
1" = 1'-0"



15 S6 DETAIL - PLATFORM STEP
1" = 1'-0"



16 S6 DETAIL -TYP BEAM CONNECTION
1" = 1'-0"



17 S6 DETAIL - TYP BRACE CONNECTION
1" = 1'-0"

DETAILS

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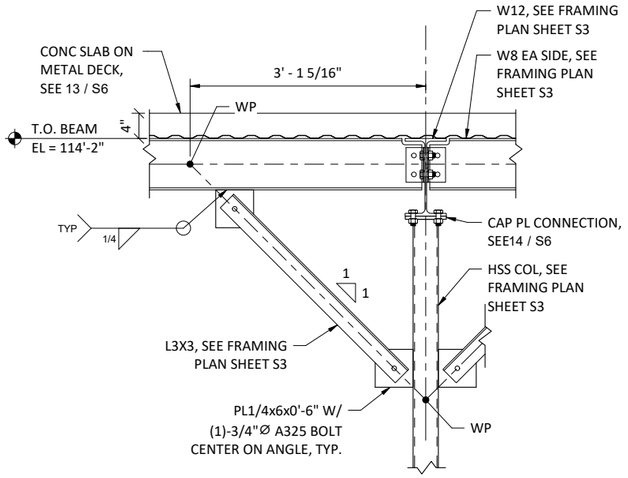
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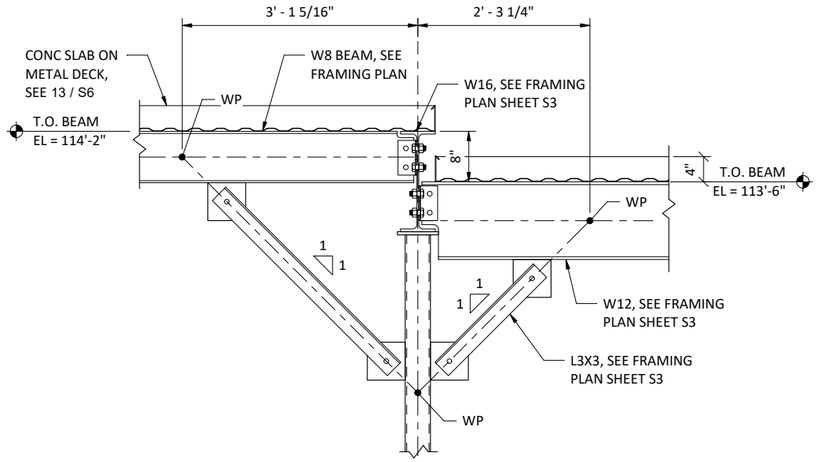
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T.H. 41 & C.S.A.H. 61 IMPROVEMENTS
PLATFORM REPLACEMENT PLAN

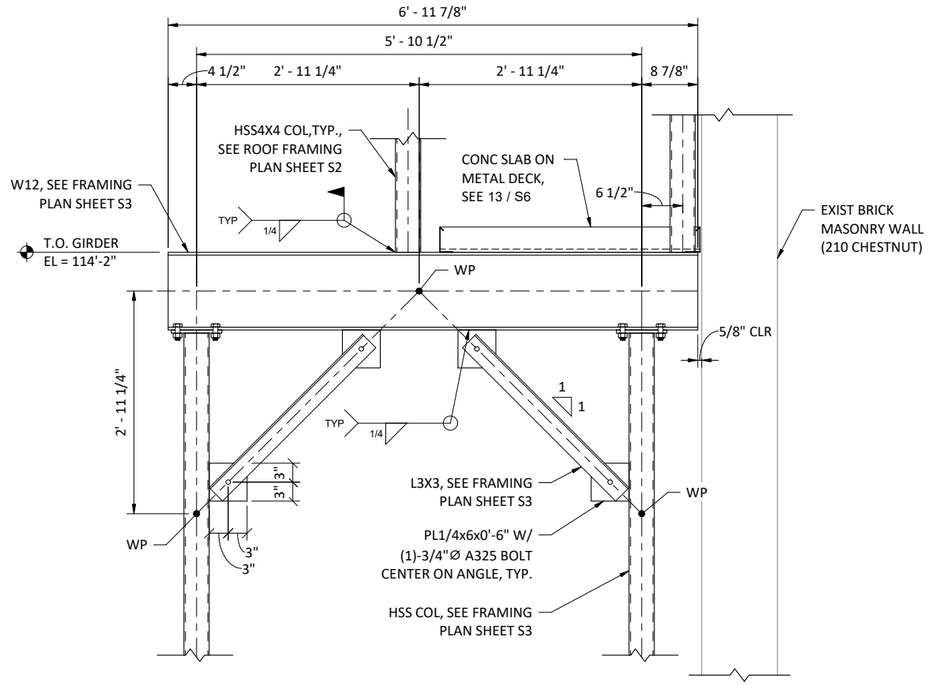
SHEET S6



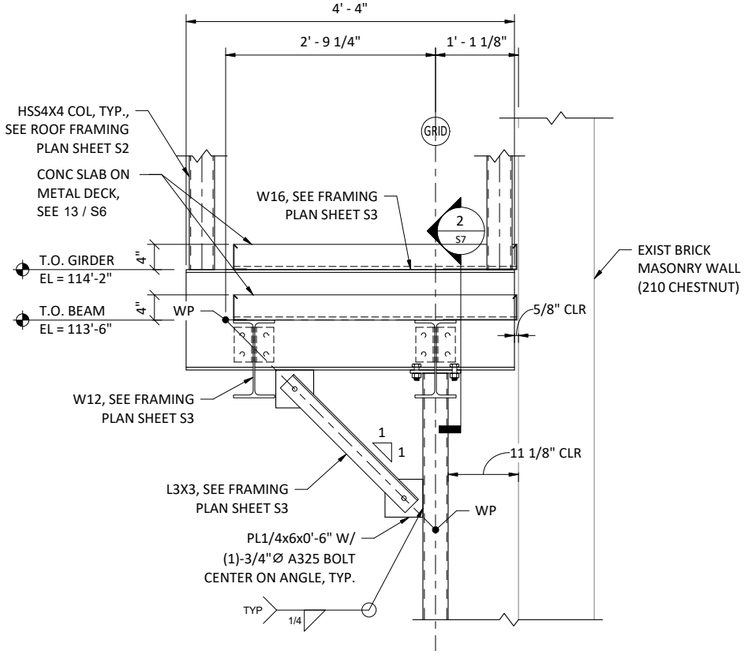
1 / S7 DETAIL - DIAGONAL BRACE CONNECTION @ W8
1" = 1'-0"



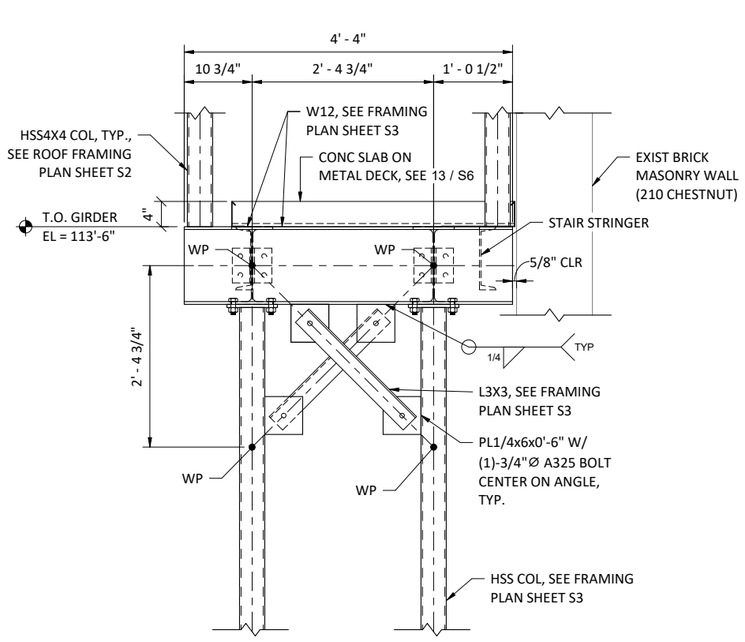
2 / S7 DETAIL - DIAGONAL BRACE CONNECTION @ W8 AND W12
1" = 1'-0"



3 / S7 DETAIL - DIAGONAL BRACE CONNECTION @ W12
1" = 1'-0"



4 / S7 DETAIL - DIAGONAL BRACE CONNECTION @ W16
1" = 1'-0"



5 / S7 DETAIL - CROSS BRACES
1" = 1'-0"

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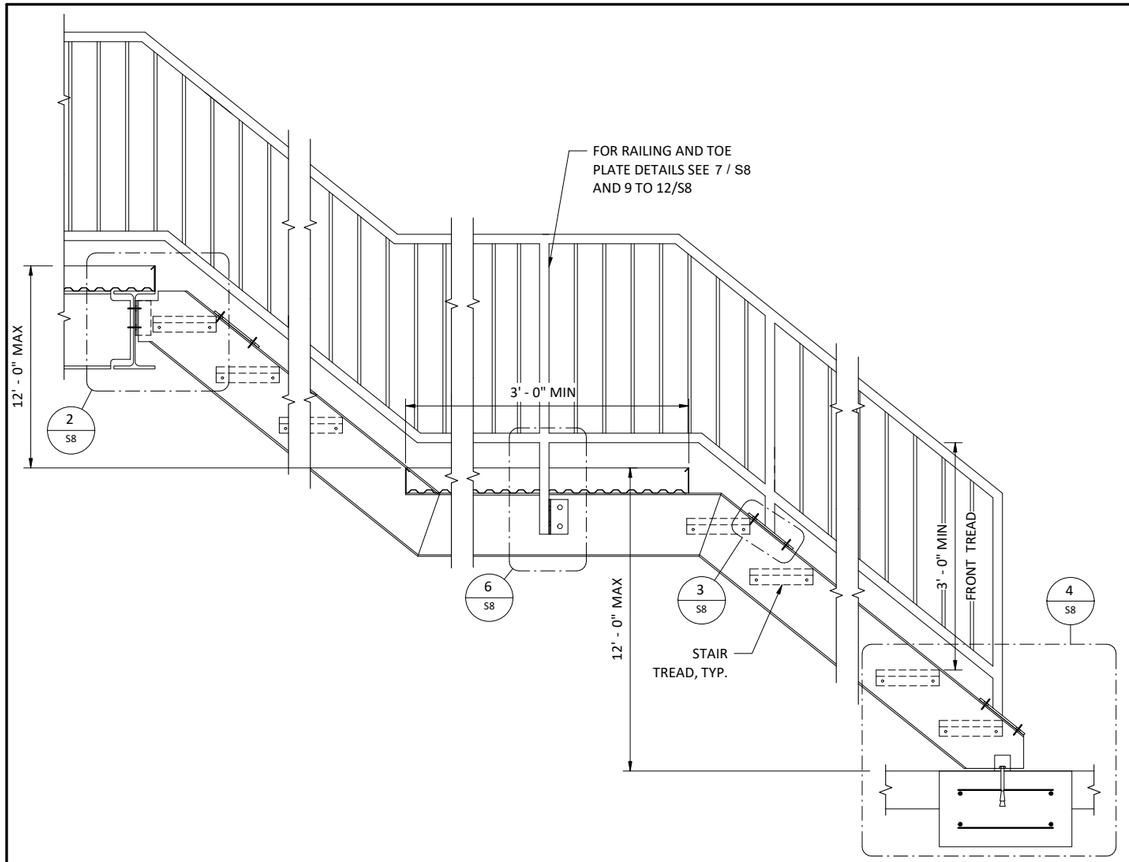
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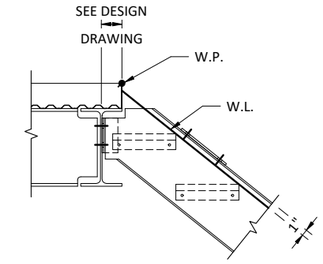
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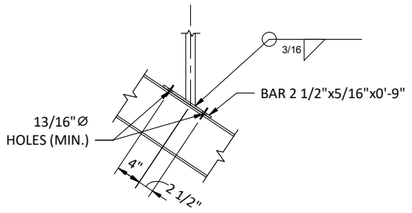
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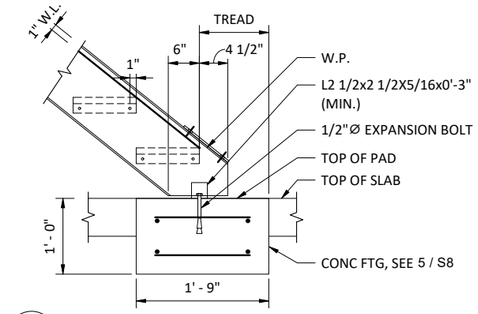
1 S8 DETAIL - STAIRS
1" = 1'-0"



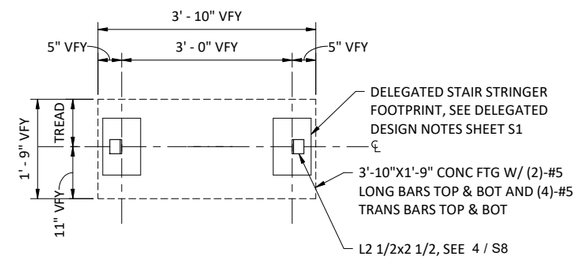
2 S8 DETAIL - TOP OF STAIR CONNECTION
1" = 1'-0"



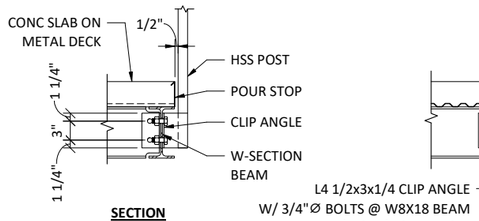
3 S8 DETAIL - STAIR POST CONNECTION
1" = 1'-0"

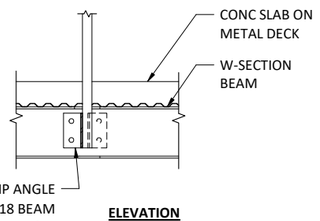


4 S8 DETAIL - BOTTOM OF STAIRS
1" = 1'-0"

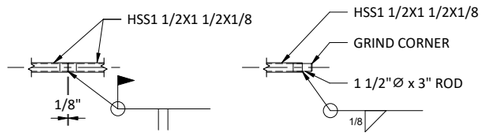


5 S8 DETAIL - REINF CONC FTG @ STAIR
3/4" = 1'-0"

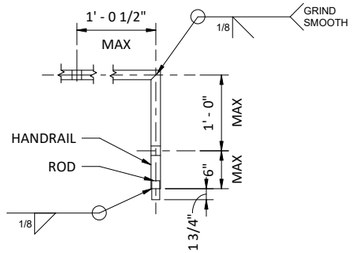




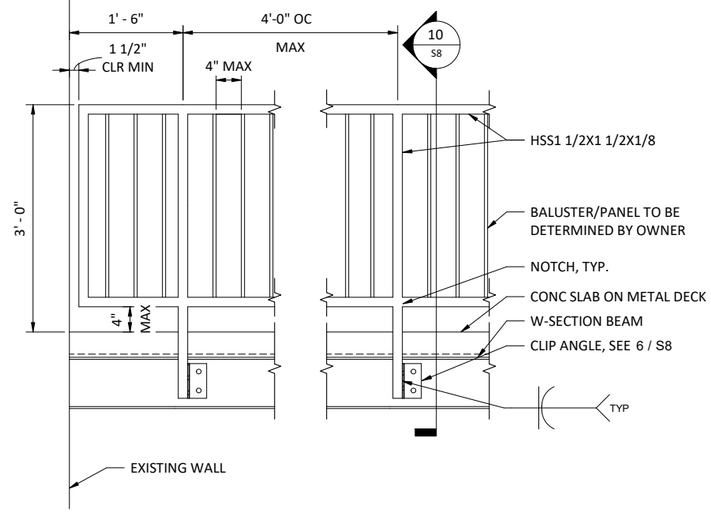
6 S8 DETAIL - HANDRAIL POST CONNECTION
1" = 1'-0"



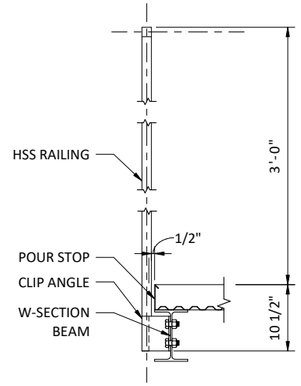
7 S8 DETAIL - HANDRAIL FITTING
1" = 1'-0"



8 S8 DETAIL - HANDRAIL & TOE PLATE CORNER
1" = 1'-0"



9 S8 DETAIL - PIPE RAILING @ WALL
1" = 1'-0"



10 S8 DETAIL - PIPE RAILING
1" = 1'-0"

DETAILS

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C:\Bolton & Menk\Revit Local Models\0T4.123211_Chaska Platform Replacement\0T4.123211_Chaska Platform Replacement_local file_.rvt

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DAVID J. STARK
LIC. NO. 52632 DATE 03/11/2022

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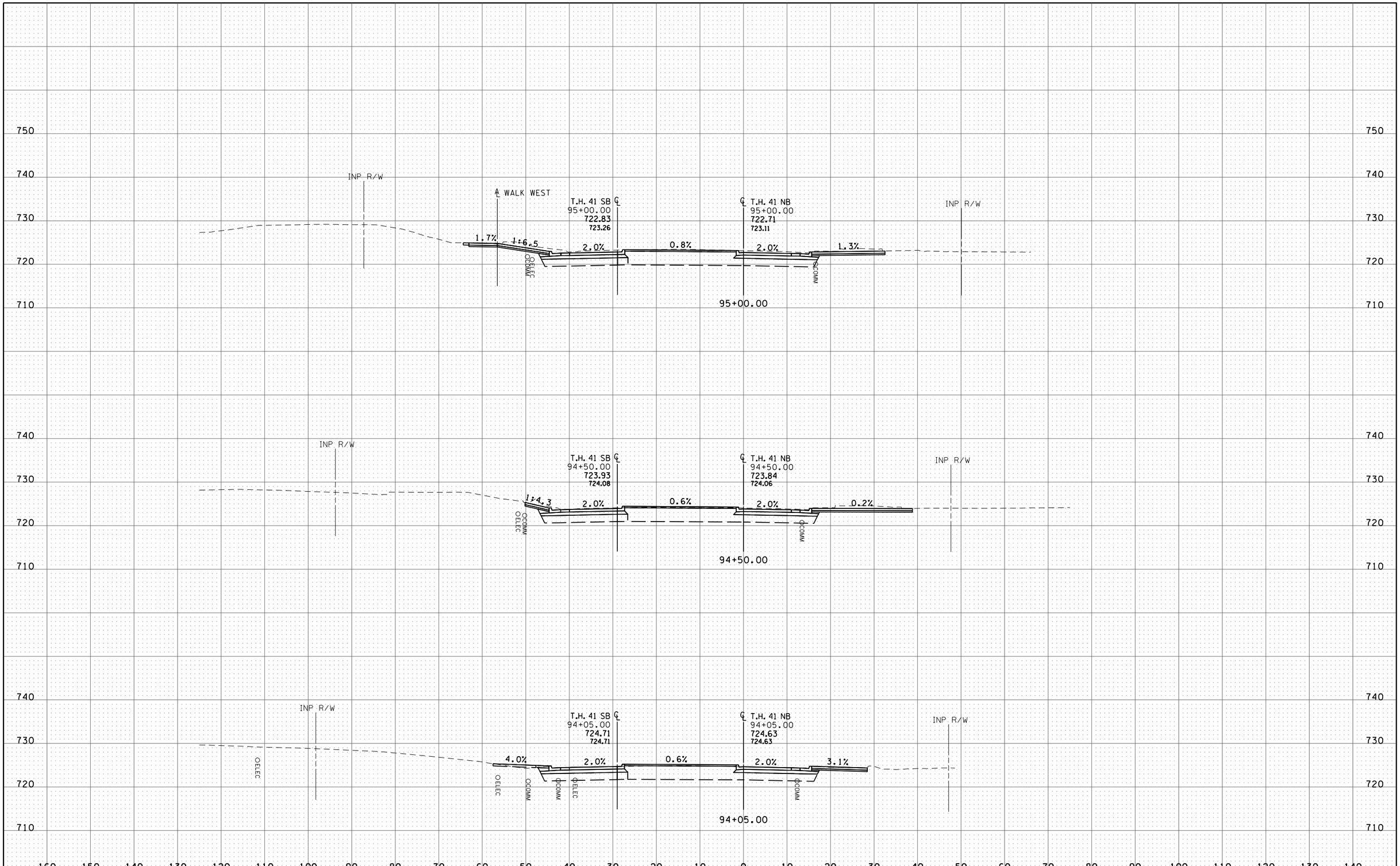
DESIGNED	GGB
DRAWN	GGB
CHECKED	DJS
CLIENT PROJ. NO	0T4.123211

NO.	ISSUED FOR	DATE

S.P. 1008-87 (TH 41), S.P. 196-010-017,
S.P. 196-010-018, S.P. 196-020-014
T.H. 41 & C.S.A.H. 61 IMPROVEMENTS

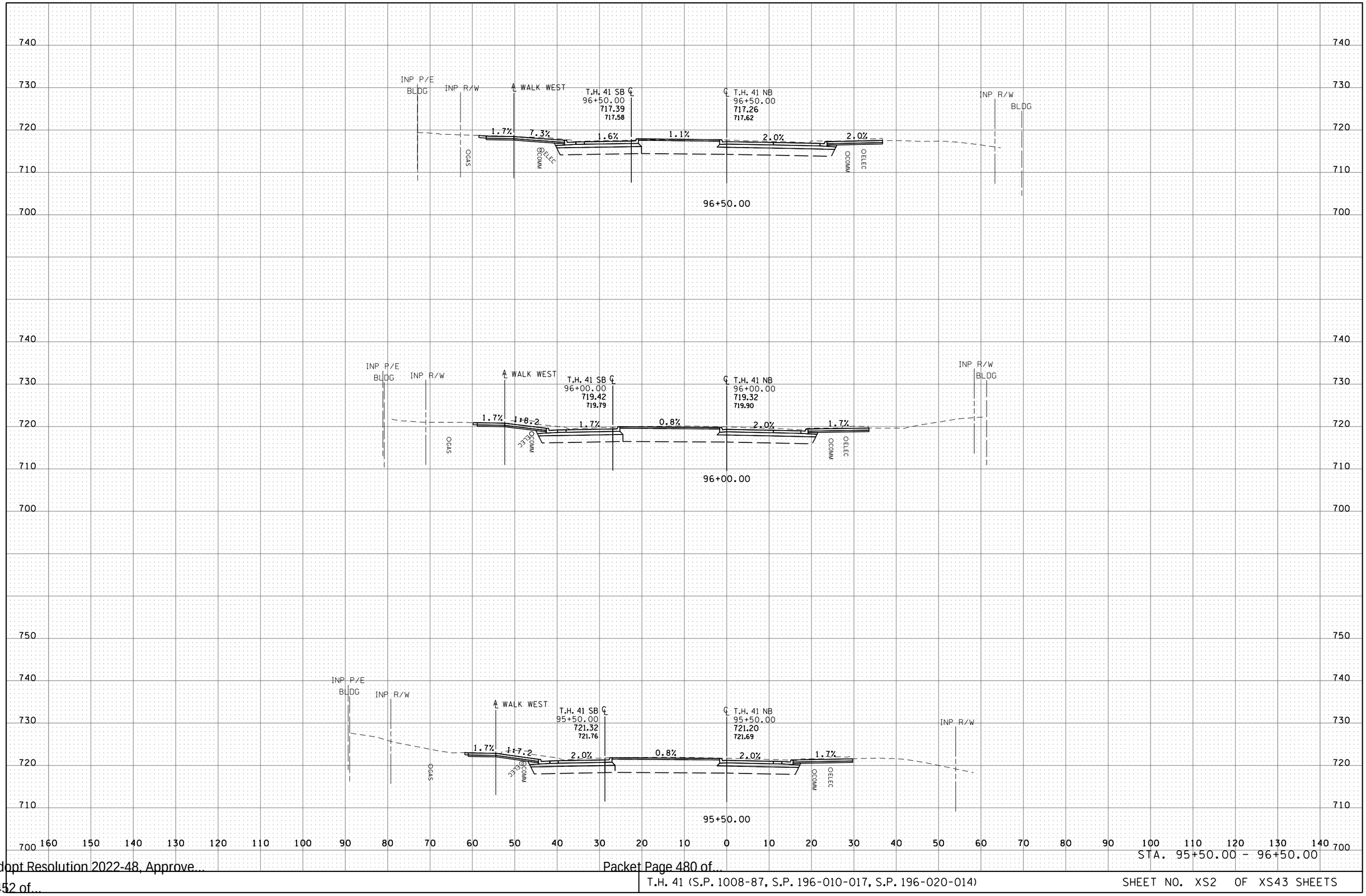
PLATFORM REPLACEMENT PLAN

SHEET S8



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omb 2/18/2022

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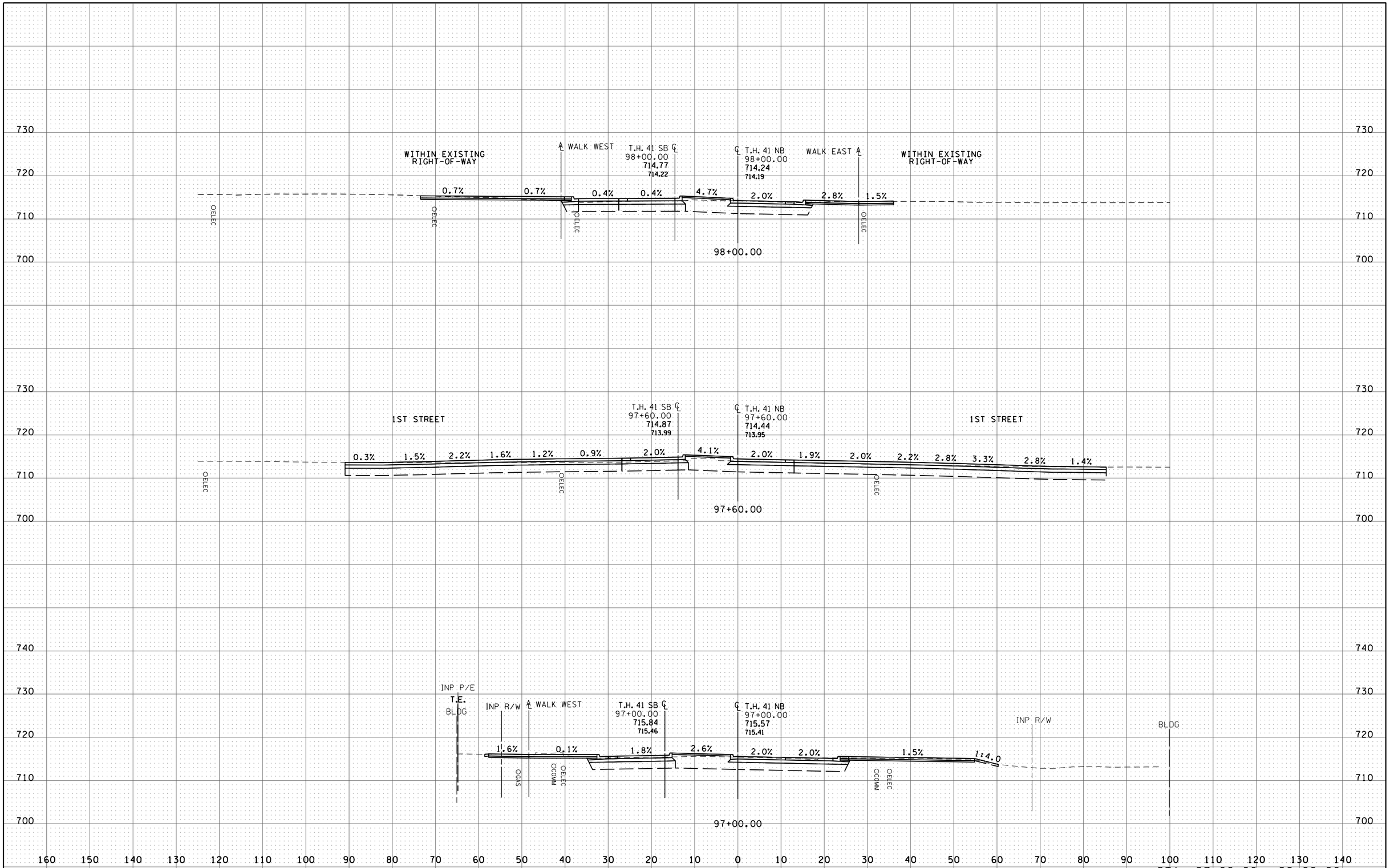


STA. 95+50.00 - 96+50.00

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

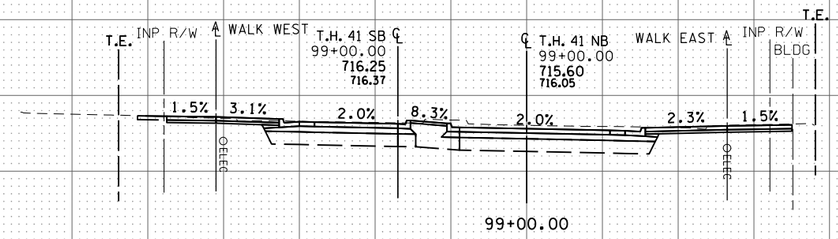
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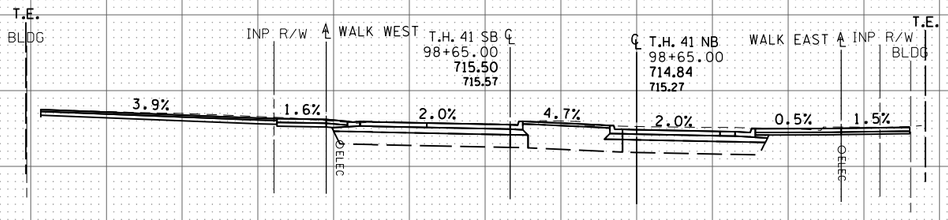
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10/18/2022

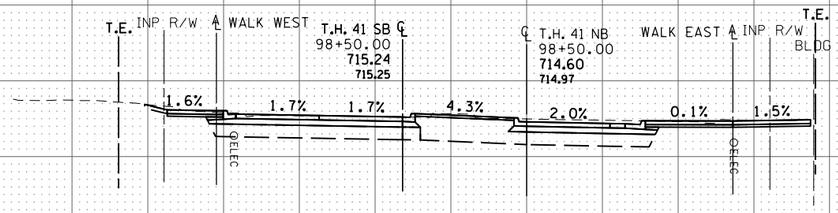


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2/18/2022 omeu

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS3 OF XS43 SHEETS





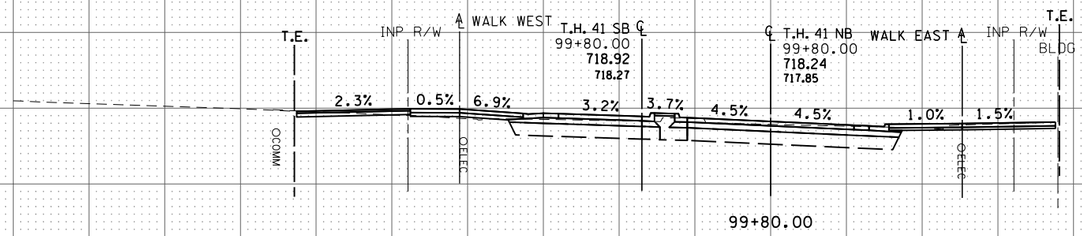


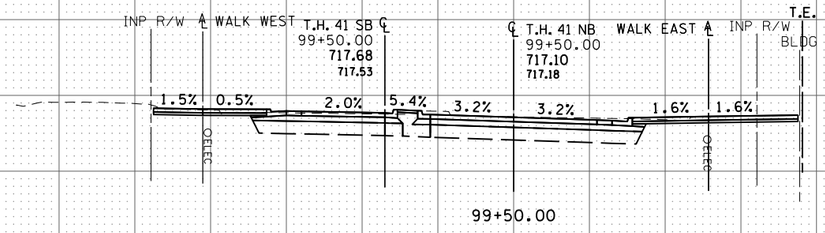
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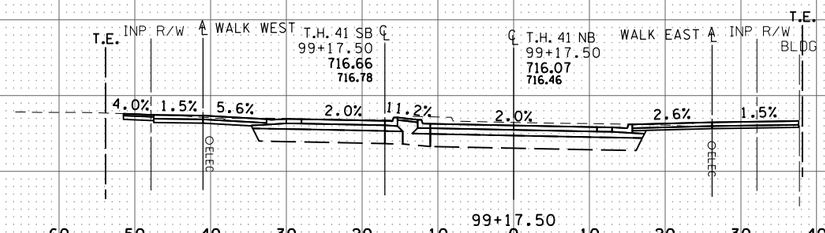
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2/16/2022 bmi





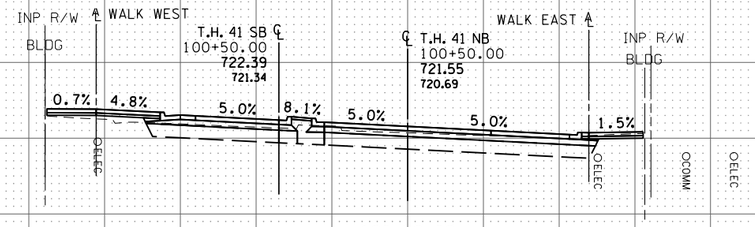


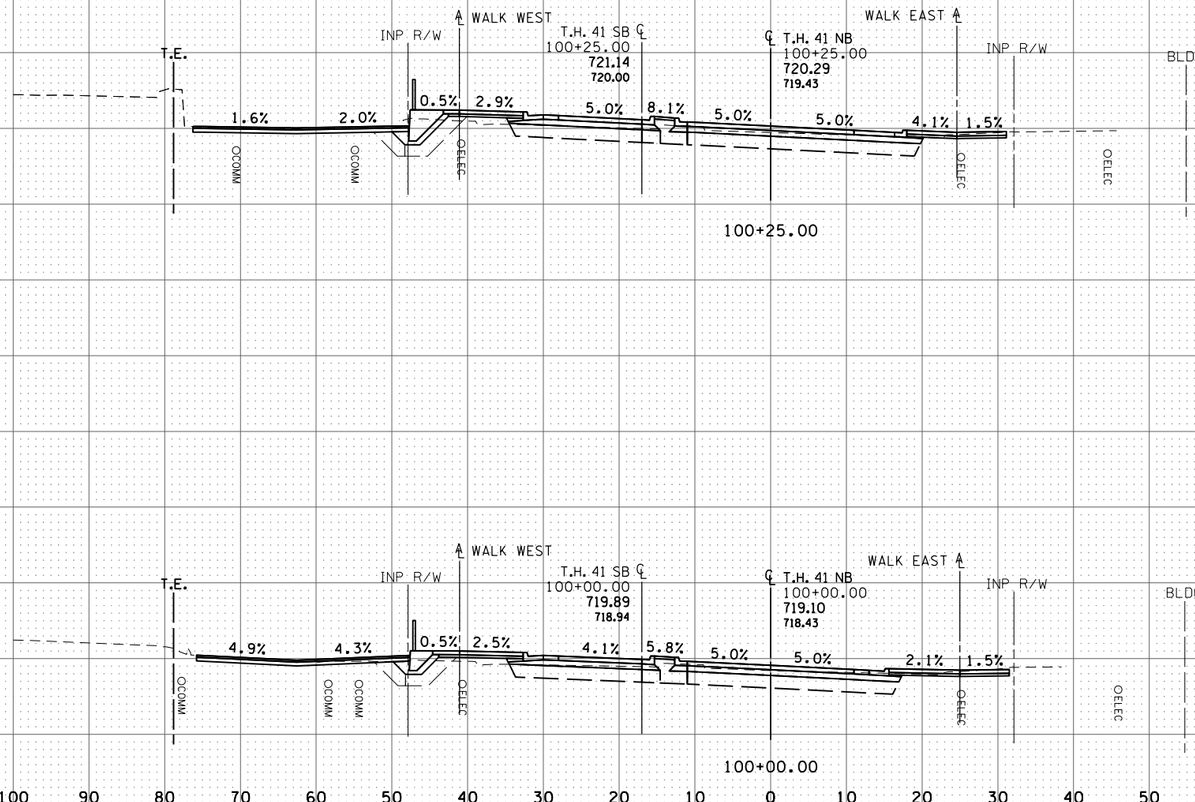
STA. 99+17.50 - 99+80.00

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

SHEET NO. XS5 OF XS43 SHEETS

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3/18/2022





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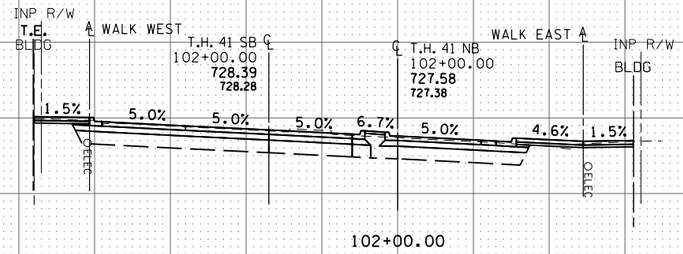
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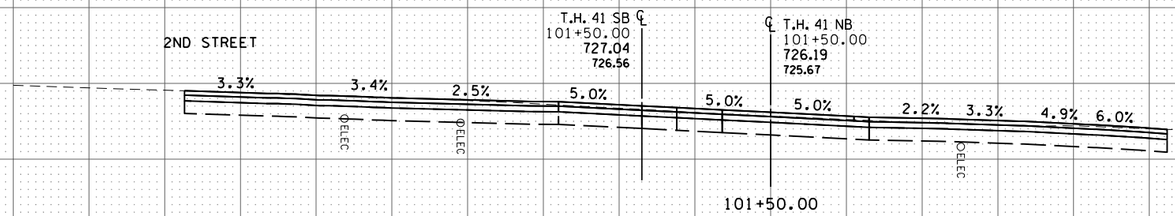
STA. 100+00.00 - 100+50.00

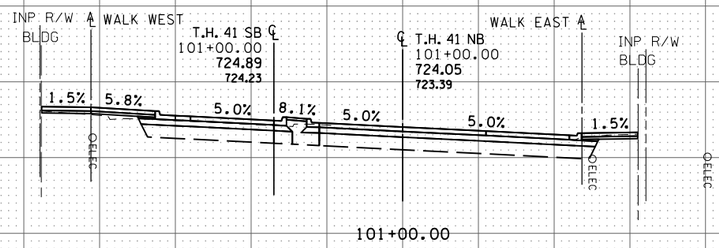
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SHEET NO. XS6 OF XS43 SHEETS

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omb 7/18/2022





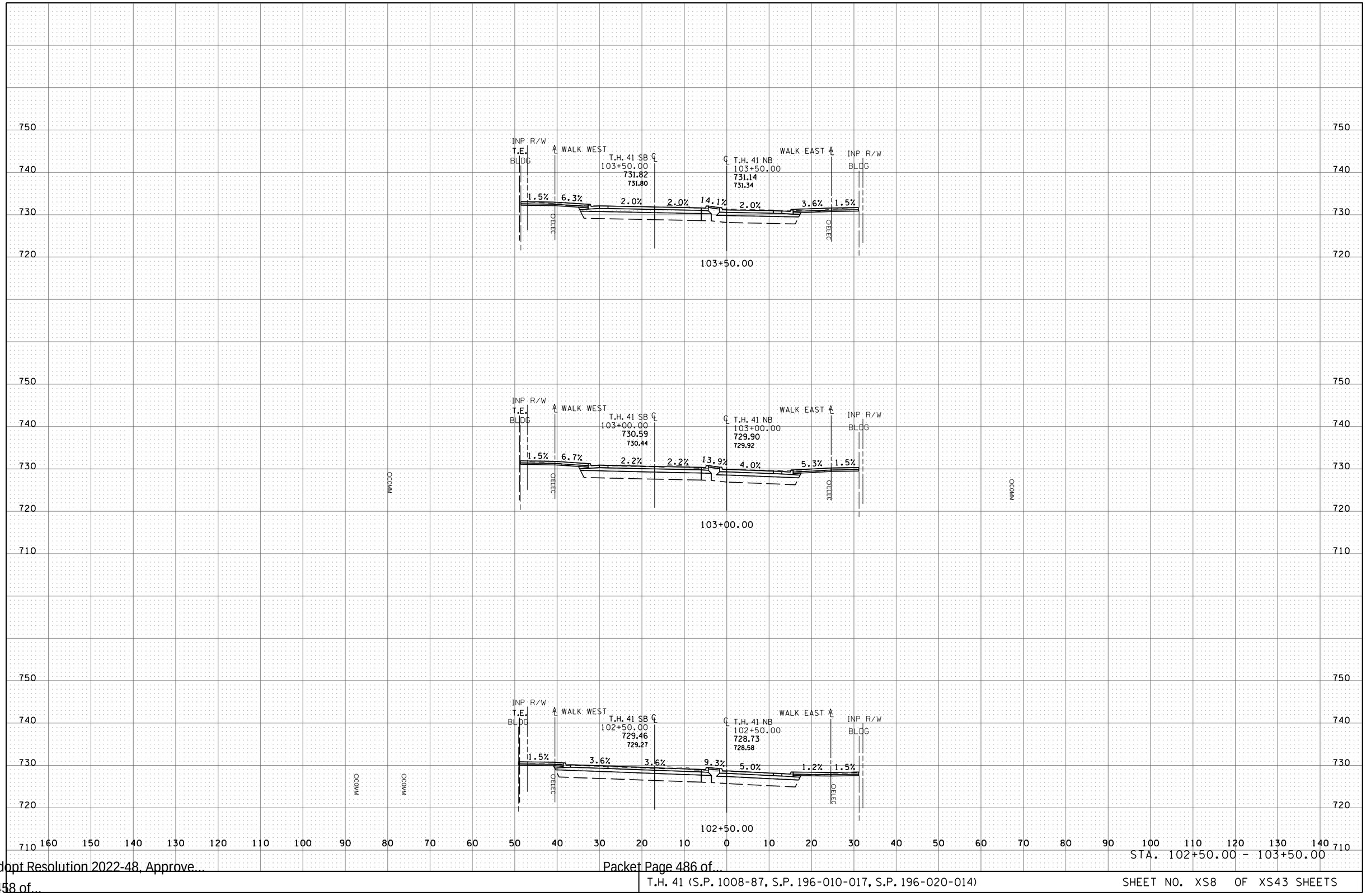


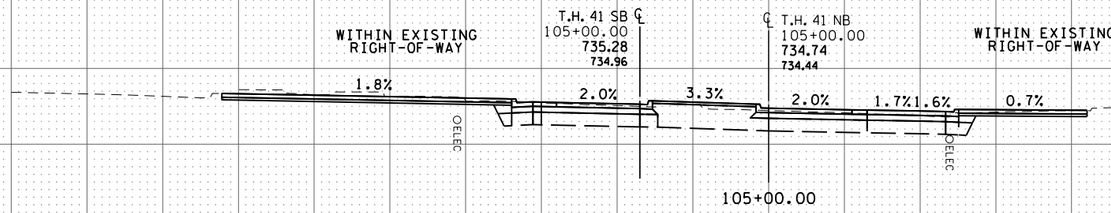
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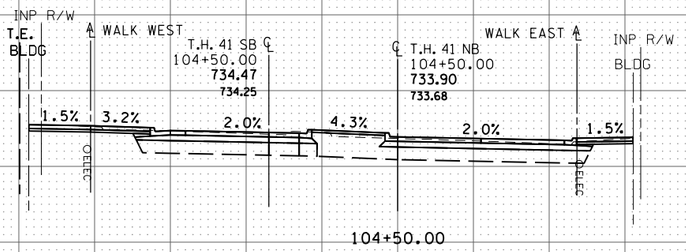
STA. 101+00.00 - 102+00.00

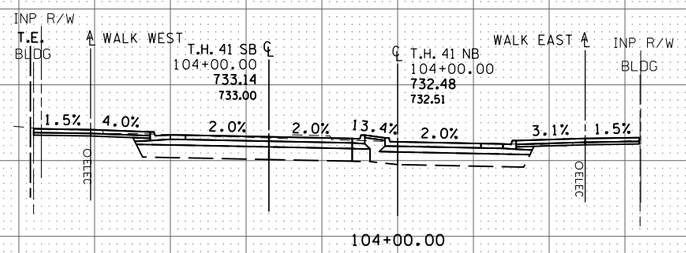
T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS7 OF XS43 SHEETS

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7/18/2022 ombu

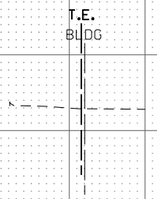

INP R/W
T.E.
BLDG
WALK WEST
T.H. 41 SB
103+50.00
731.82
731.80
T.H. 41 NB
103+50.00
731.14
731.34
WALK EAST
INP R/W
BLDG
1.5%
6.3%
2.0%
2.0%
14.1%
2.0%
3.6%
1.5%
OELEC
OTELC
103+50.00
INP R/W
T.E.
BLDG
WALK WEST
T.H. 41 SB
103+00.00
730.59
730.44
T.H. 41 NB
103+00.00
729.90
729.92
WALK EAST
INP R/W
BLDG
1.5%
6.7%
2.2%
2.2%
13.9%
4.0%
5.3%
1.5%
OELEC
OTELC
OCOMM
103+00.00
INP R/W
T.E.
BLDG
WALK WEST
T.H. 41 SB
102+50.00
729.46
729.27
T.H. 41 NB
102+50.00
728.73
728.58
WALK EAST
INP R/W
BLDG
1.5%
3.6%
3.6%
9.3%
5.0%
1.2%
1.5%
OELEC
OTELC
OCOMM
102+50.00
750
740
730
720
710
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140
STA. 102+50.00 - 103+50.00
T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)
SHEET NO. XS8 OF XS43 SHEETS
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omb 7/18/2022









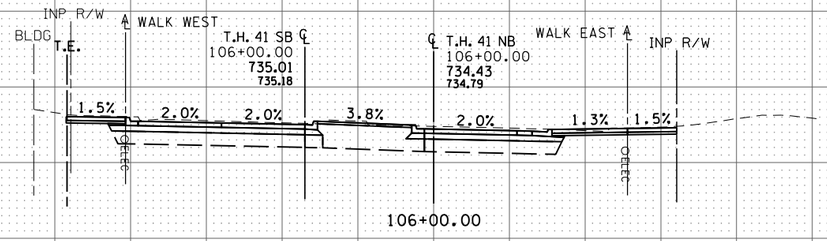


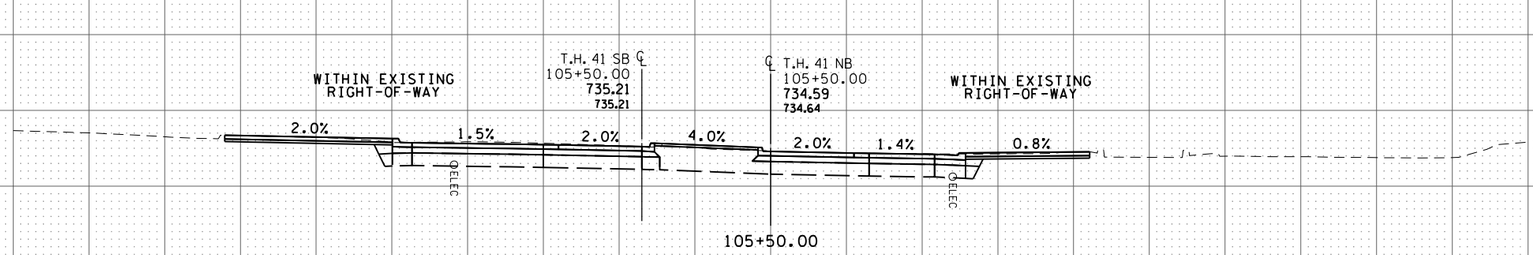
STA. 104+00.00 - 105+00.00

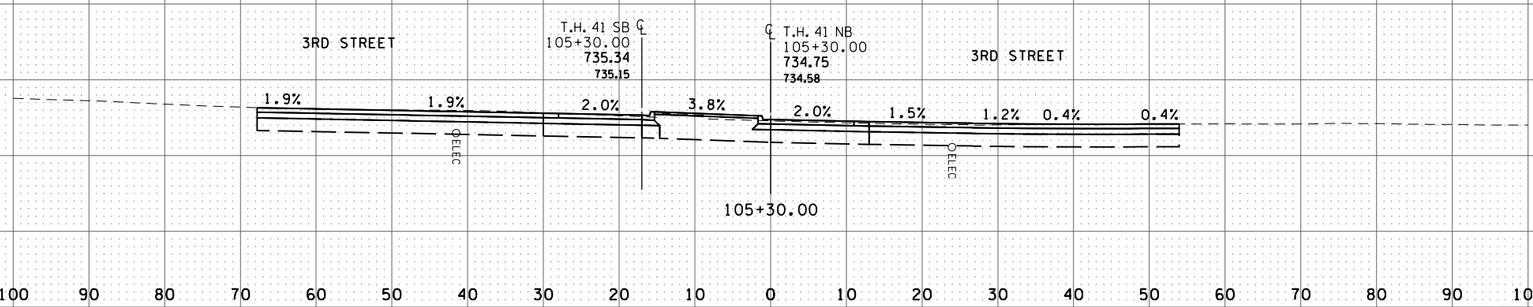
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SHEET NO. XS9 OF XS43 SHEETS

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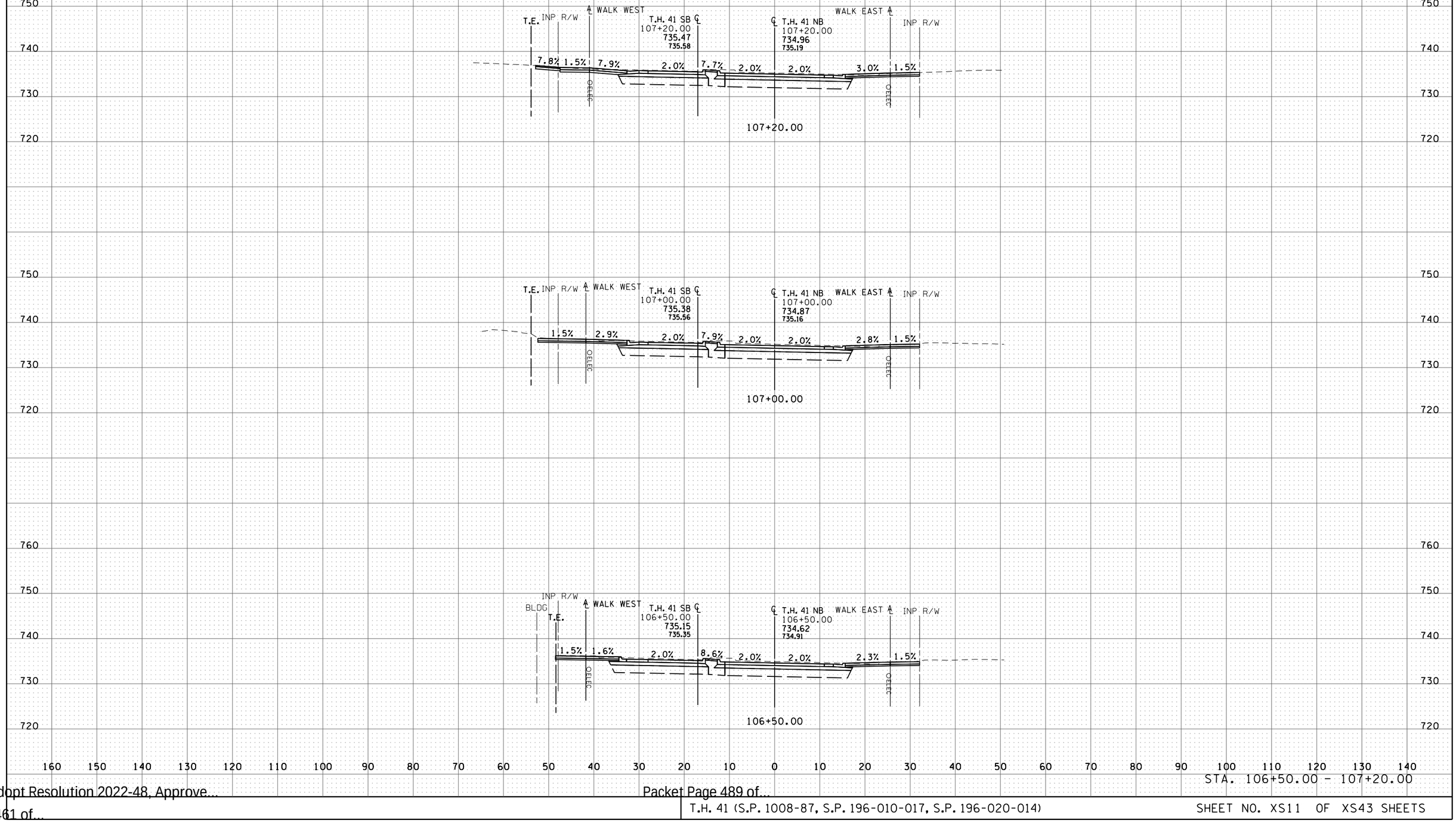


STA. 105+30.00 - 106+00.00

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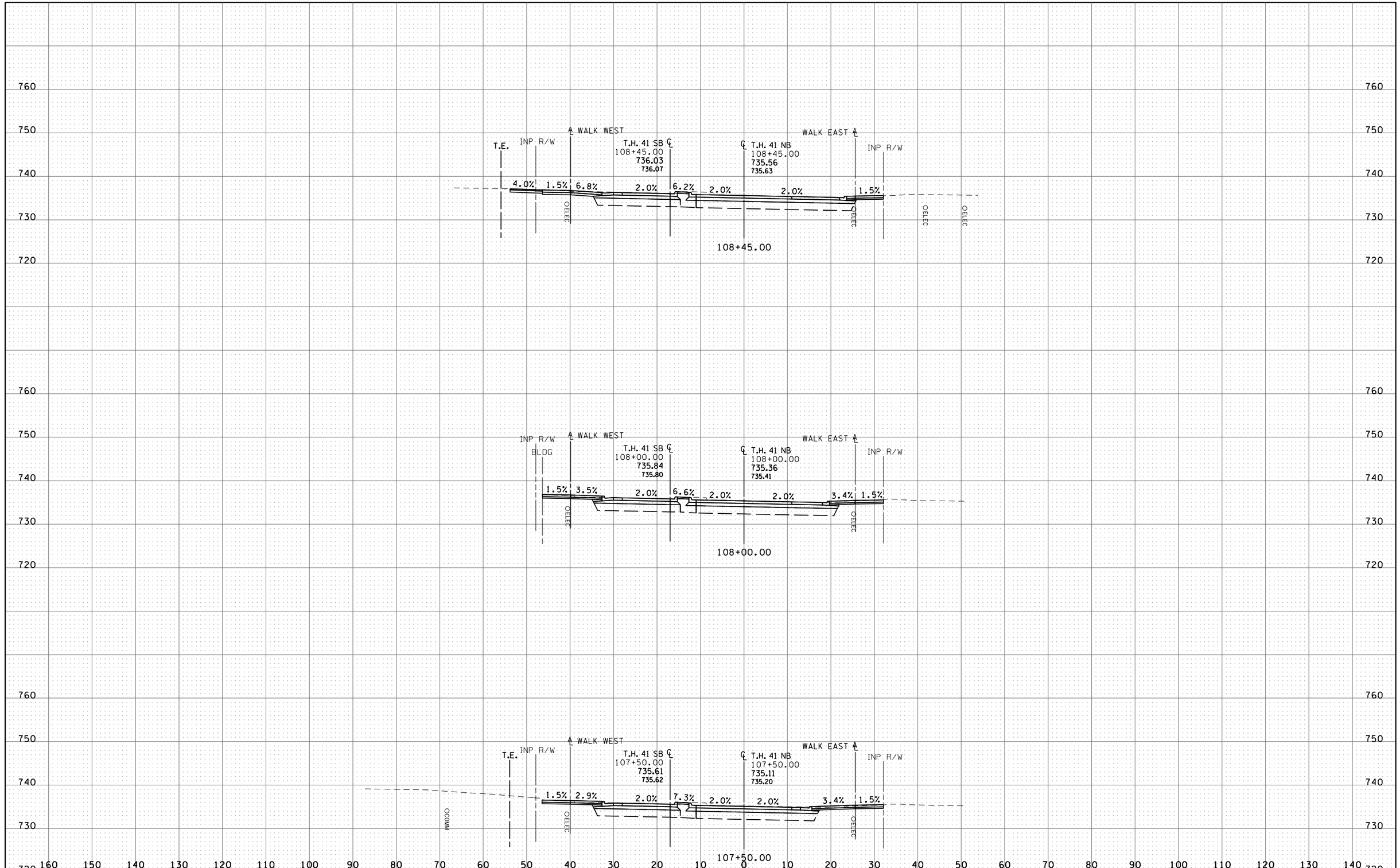


STA. 106+50.00 - 107+20.00

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omb 7/18/2022

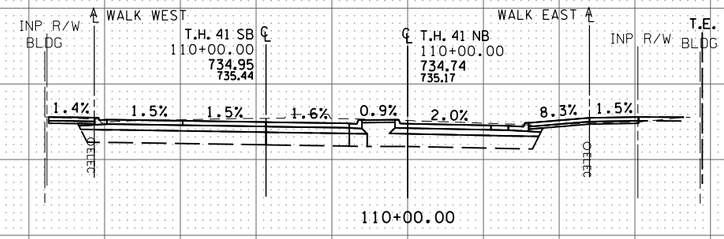


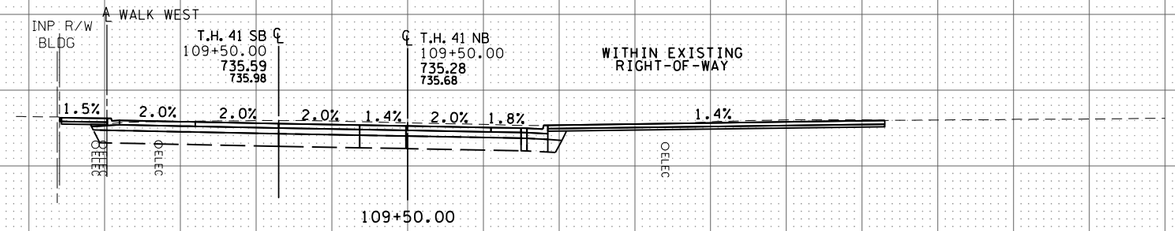
STA. 107+50.00 - 108+45.00

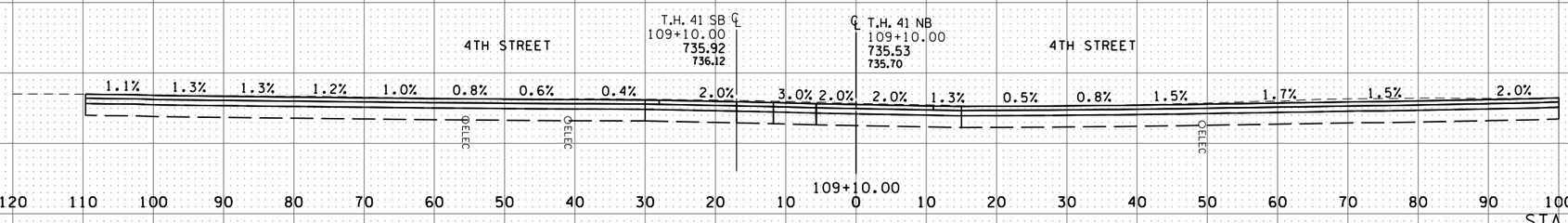
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2/18/2022 tomsJ





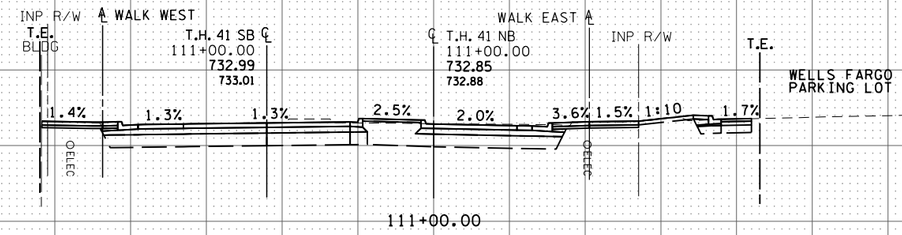


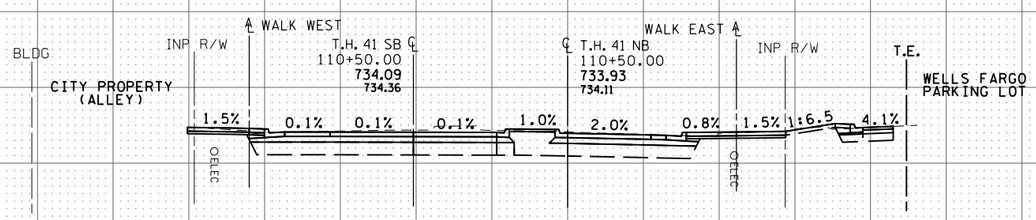
STA. 109+10.00 - 110+00.00

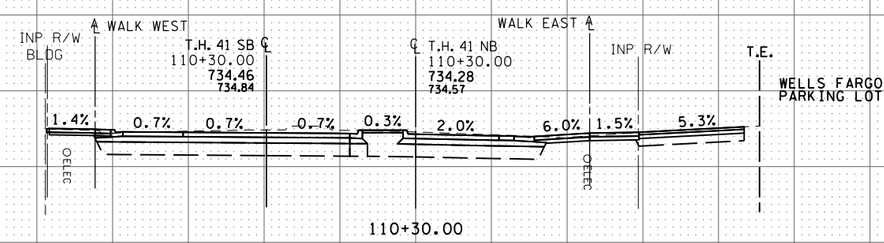
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SHEET NO. XS13 OF XS43 SHEETS

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7/18/2022





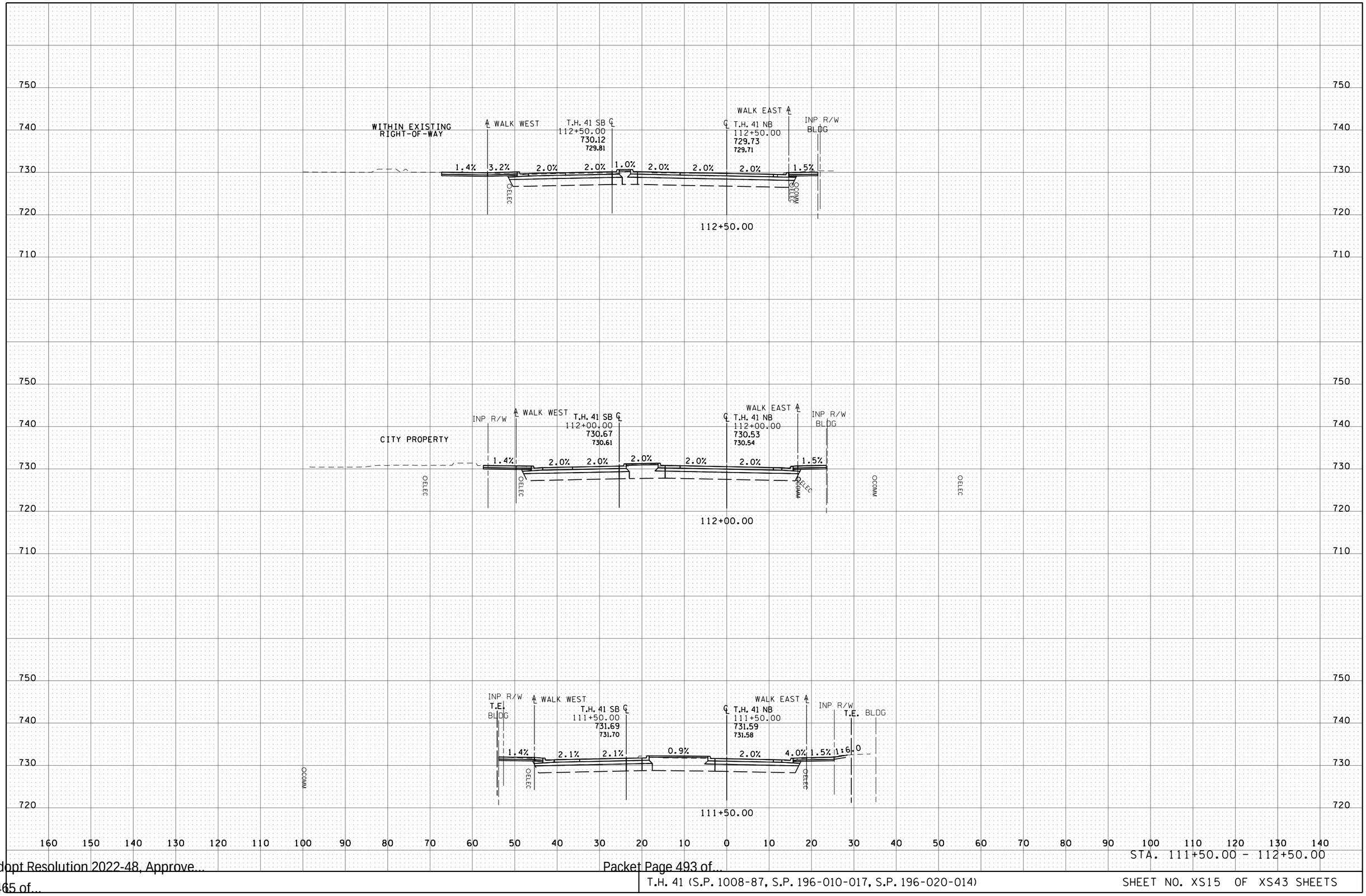


160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

STA. 110+30.00 - 111+00.00

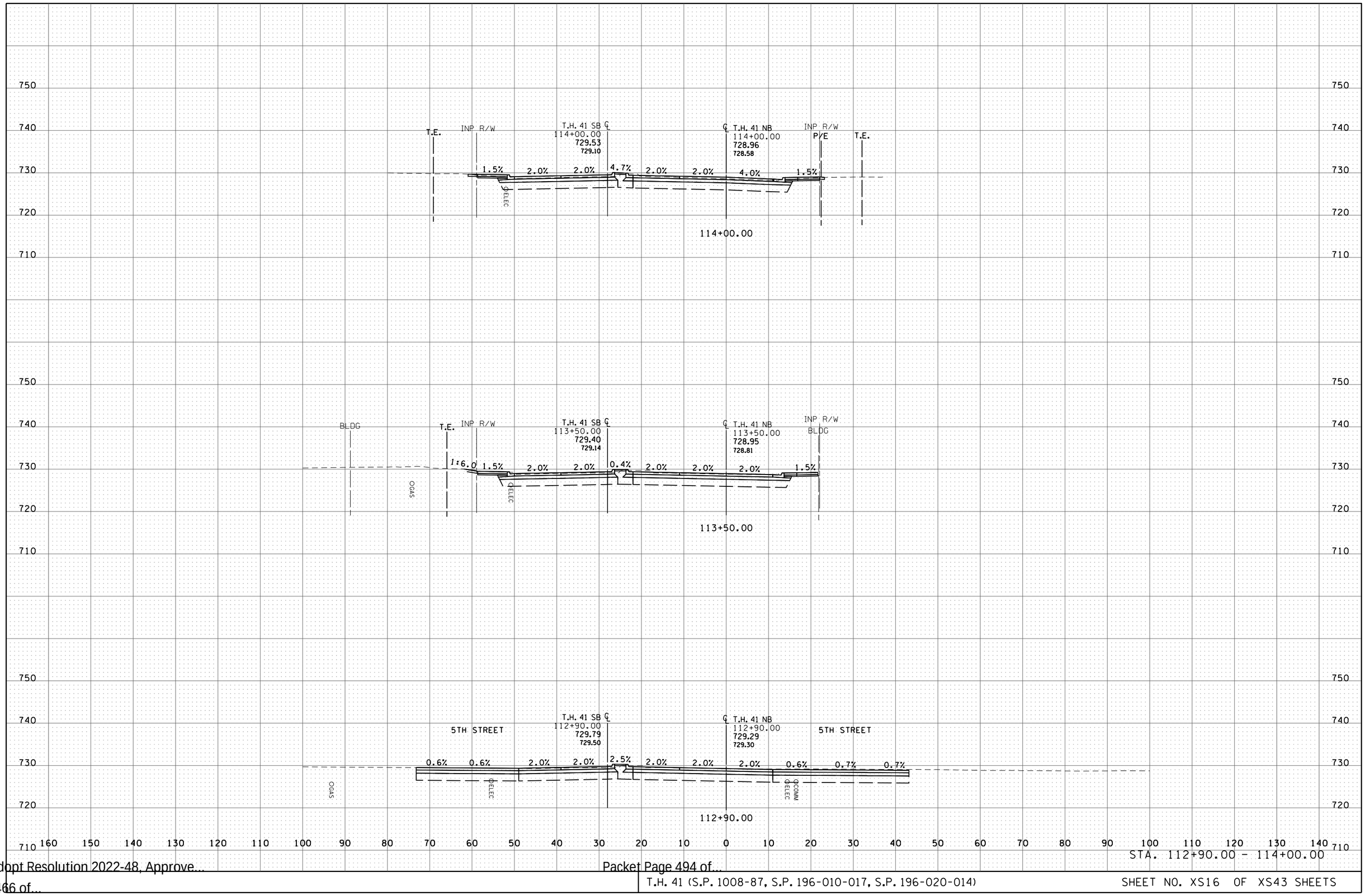
T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS14 OF XS43 SHEETS

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1:30:49 PM
omb 7/18/2022



pdf-B and W.pltcfg bmi.tbl
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7/18/2022 tomsj

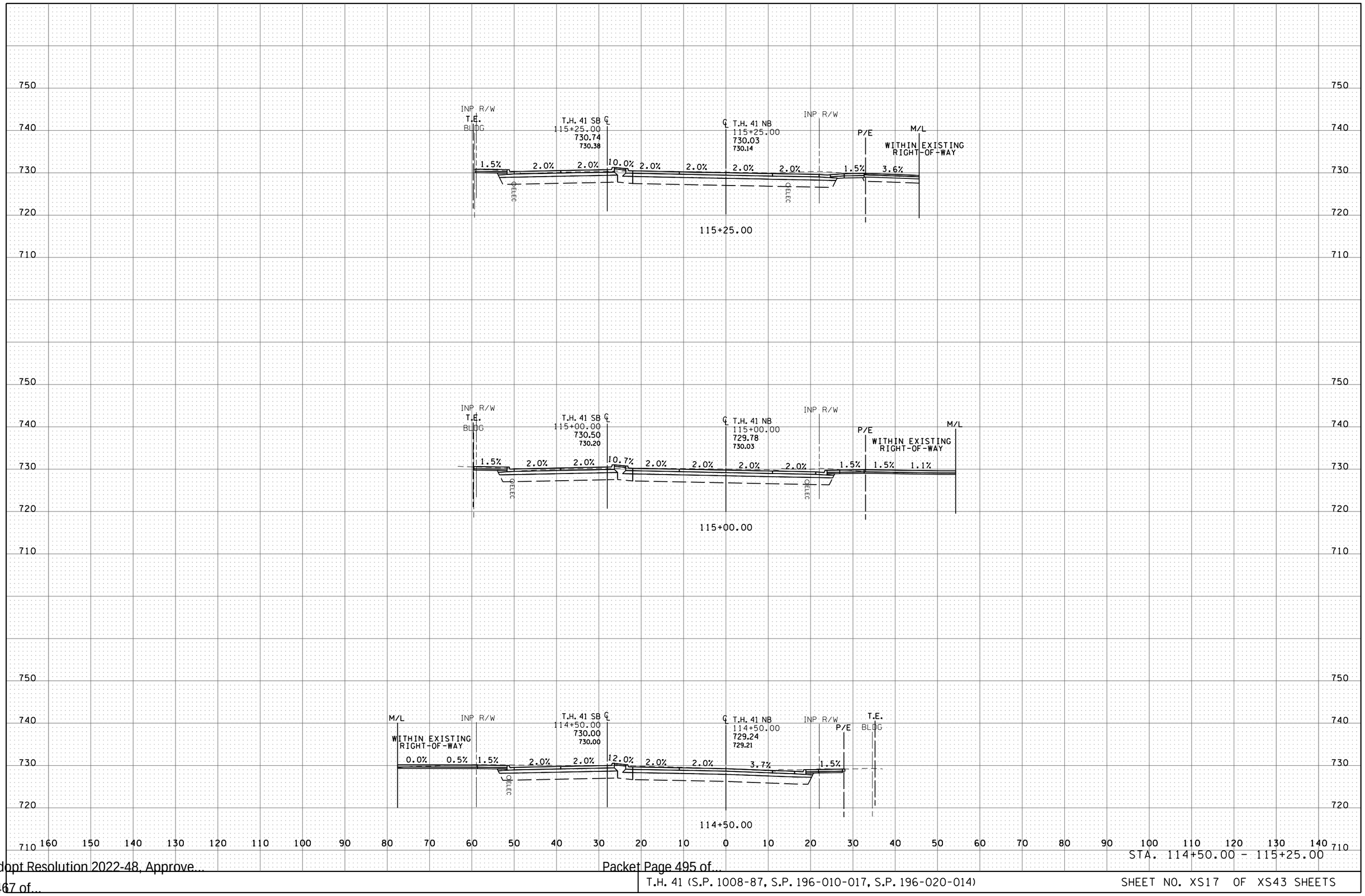
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2/18/2022 omBU

STA. 112+90.00 - 114+00.00

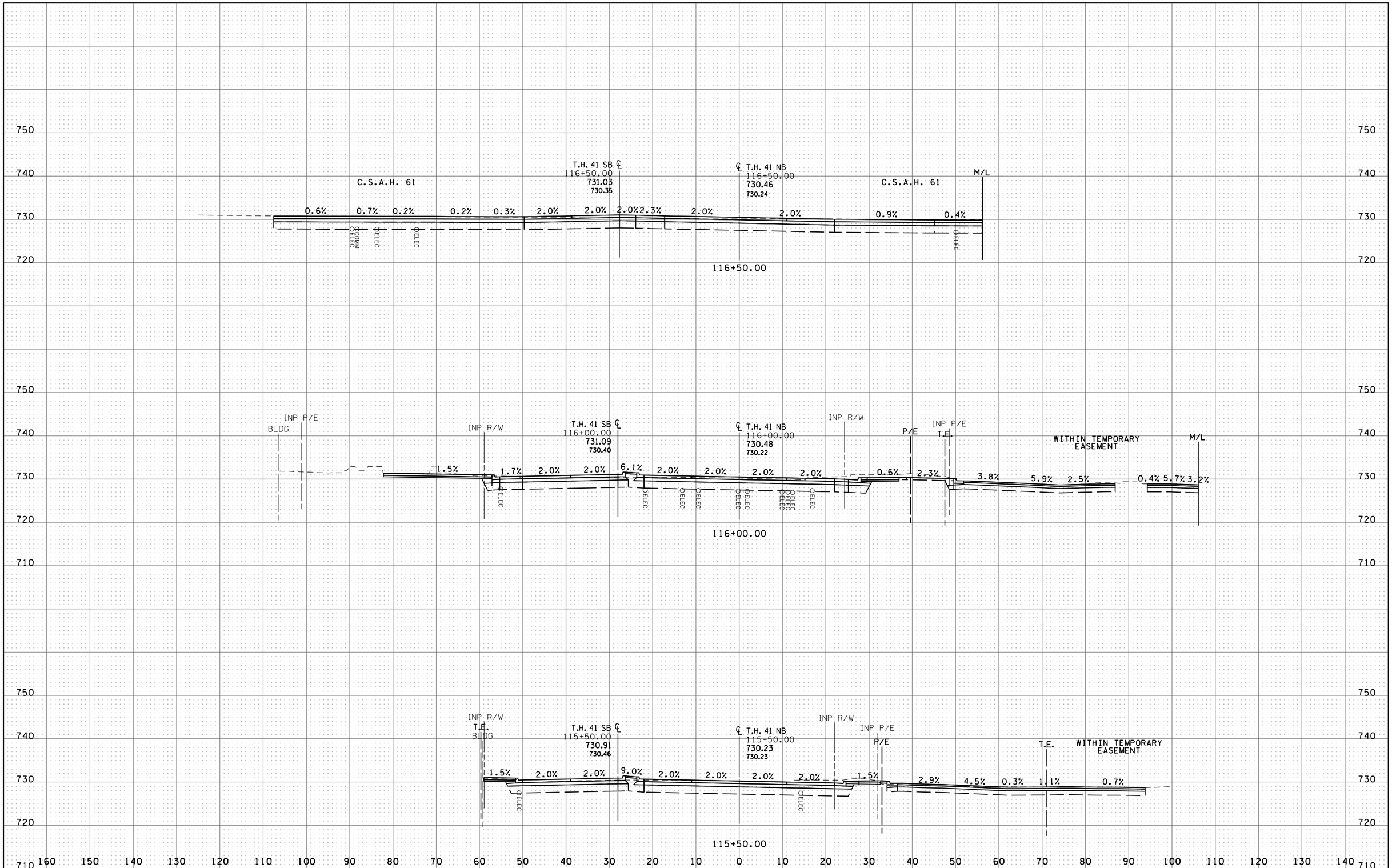
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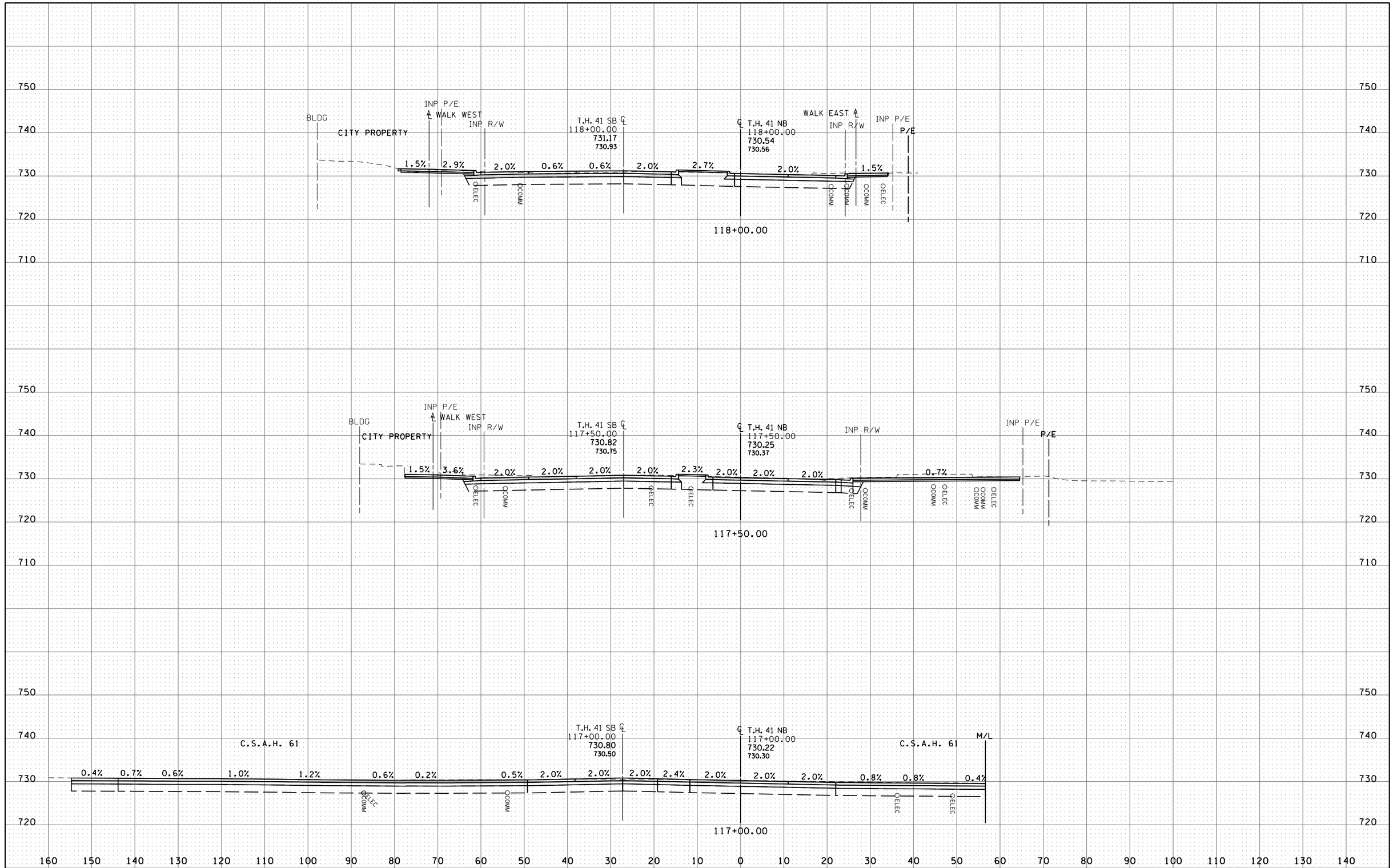
STA. 114+50.00 - 115+25.00

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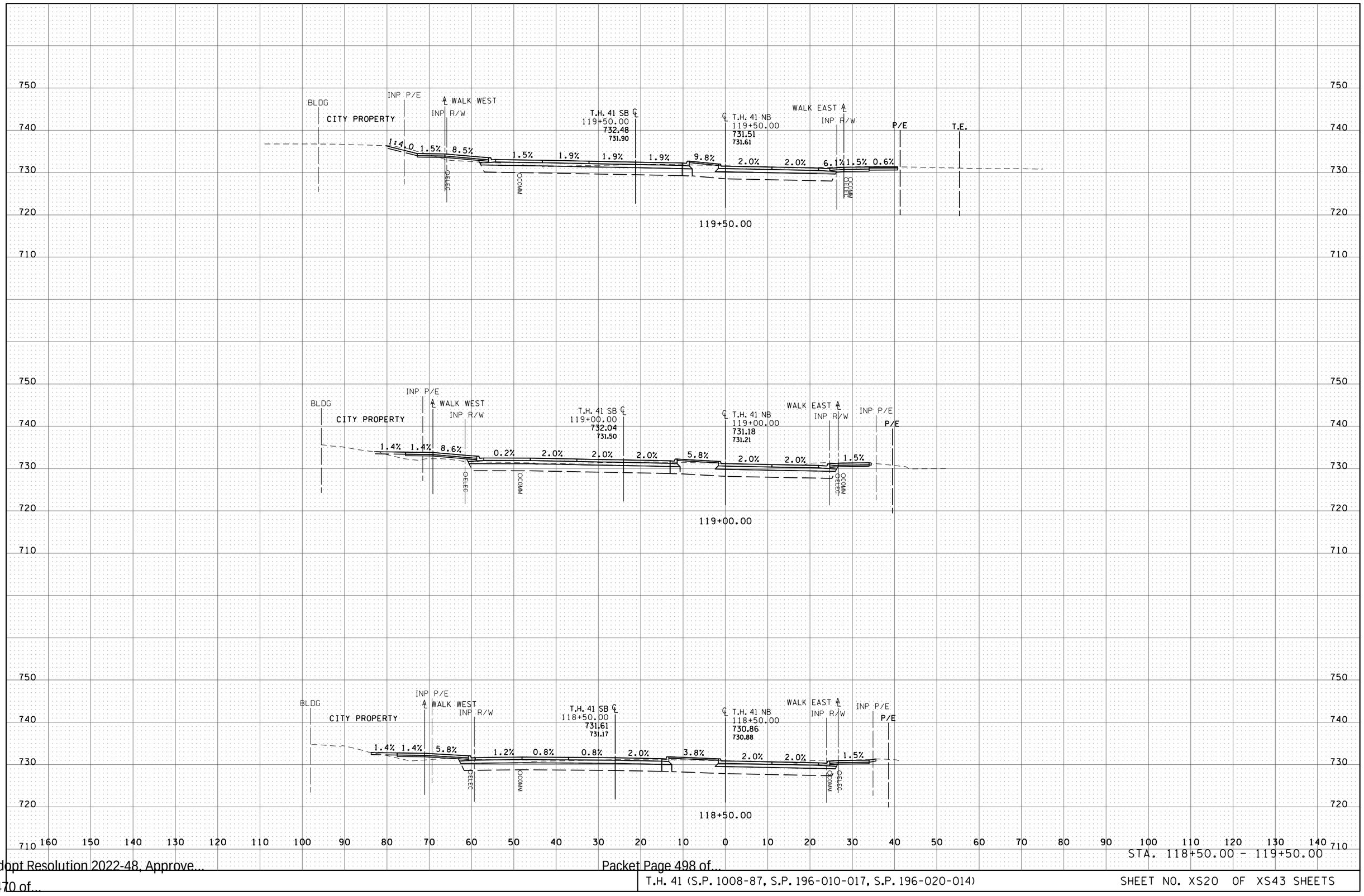
pdf-B and W.pltcfg bmi.tbl
1:30:55 PM H:\CHKA\OT4123211\CAD\MS\plans\XS\cd123211_xp_TH41.dgn
10/18/2022 tombo

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS18 OF XS43 SHEETS



pdf-B and W.pltcfg bmi.tbl H:\CHKA\0T4123211\CAD\MS\plans\XS\cdl23211_xp_TH41.dgn
1:30:57 PM
2/18/2022

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS19 OF XS43 SHEETS

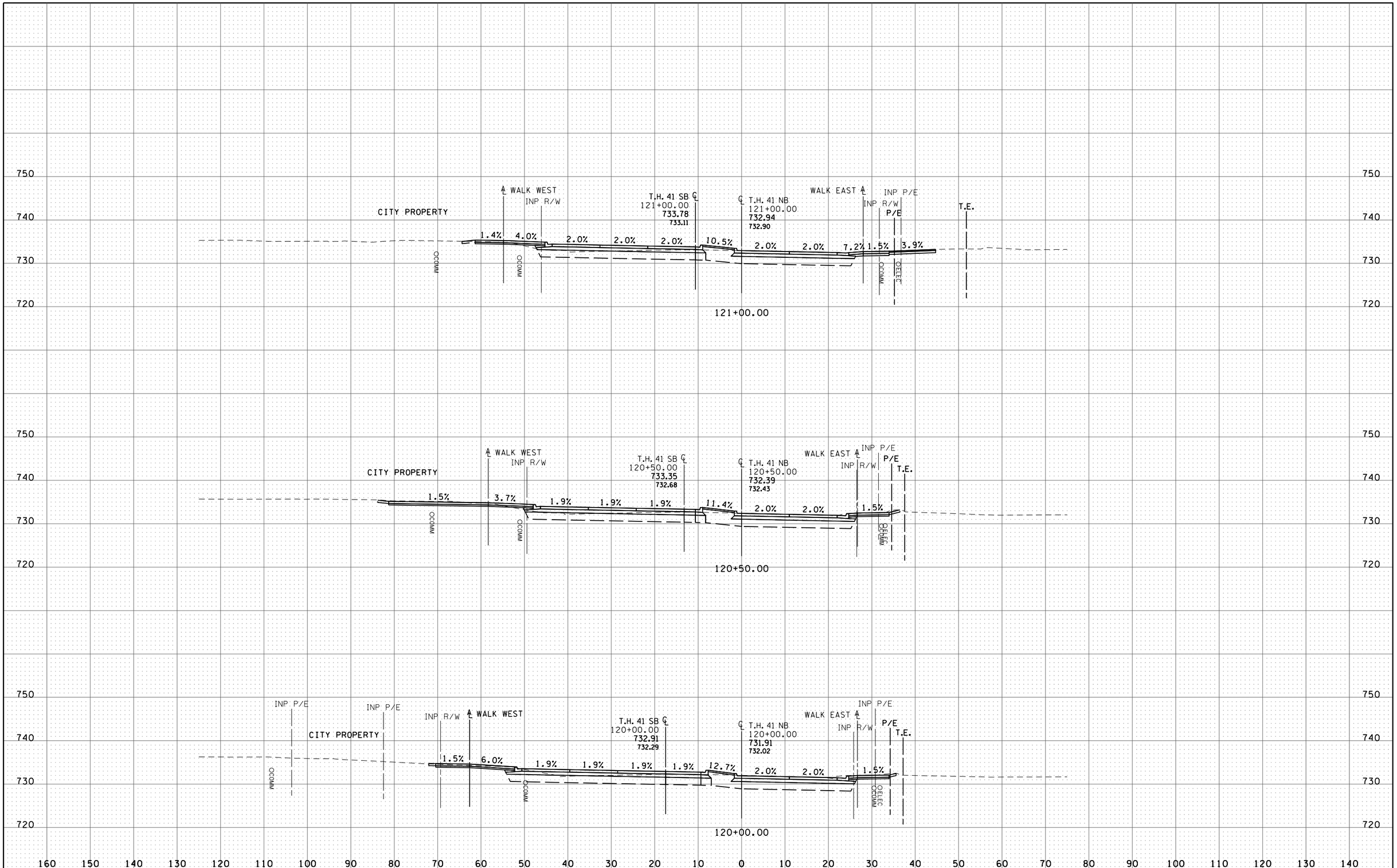


STA. 118+50.00 - 119+50.00

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

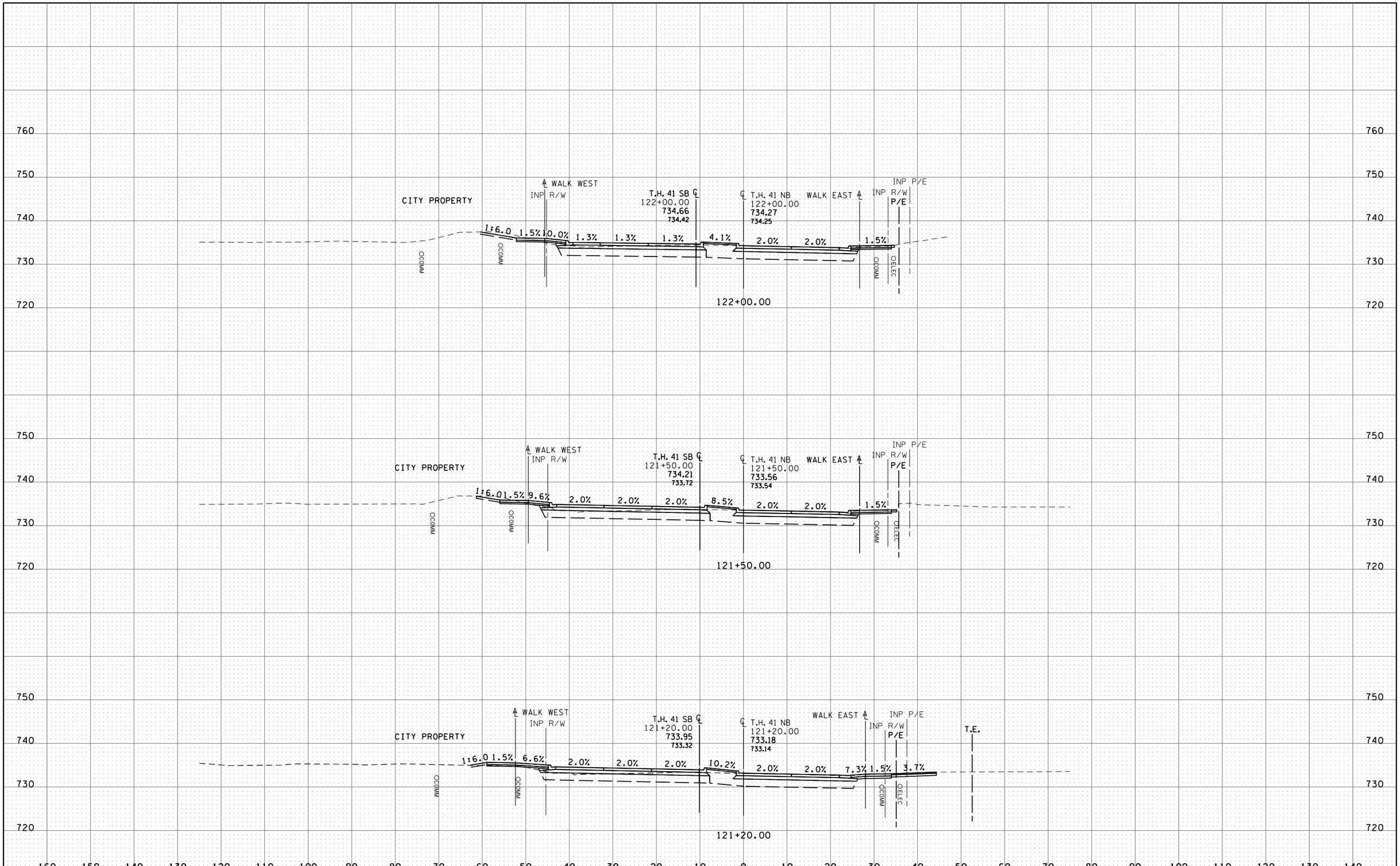
SHEET NO. XS20 OF XS43 SHEETS

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1:30:58 PM
on 8/18/2022



pdf-B and W.pltcfg bmi.tbl
1:31:00 PM H:\CHKA\OT4123211\CAD\MS\plans\XS\cd123211_xp_TH41.dgn
omb 2/18/2022

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS21 OF XS43 SHEETS

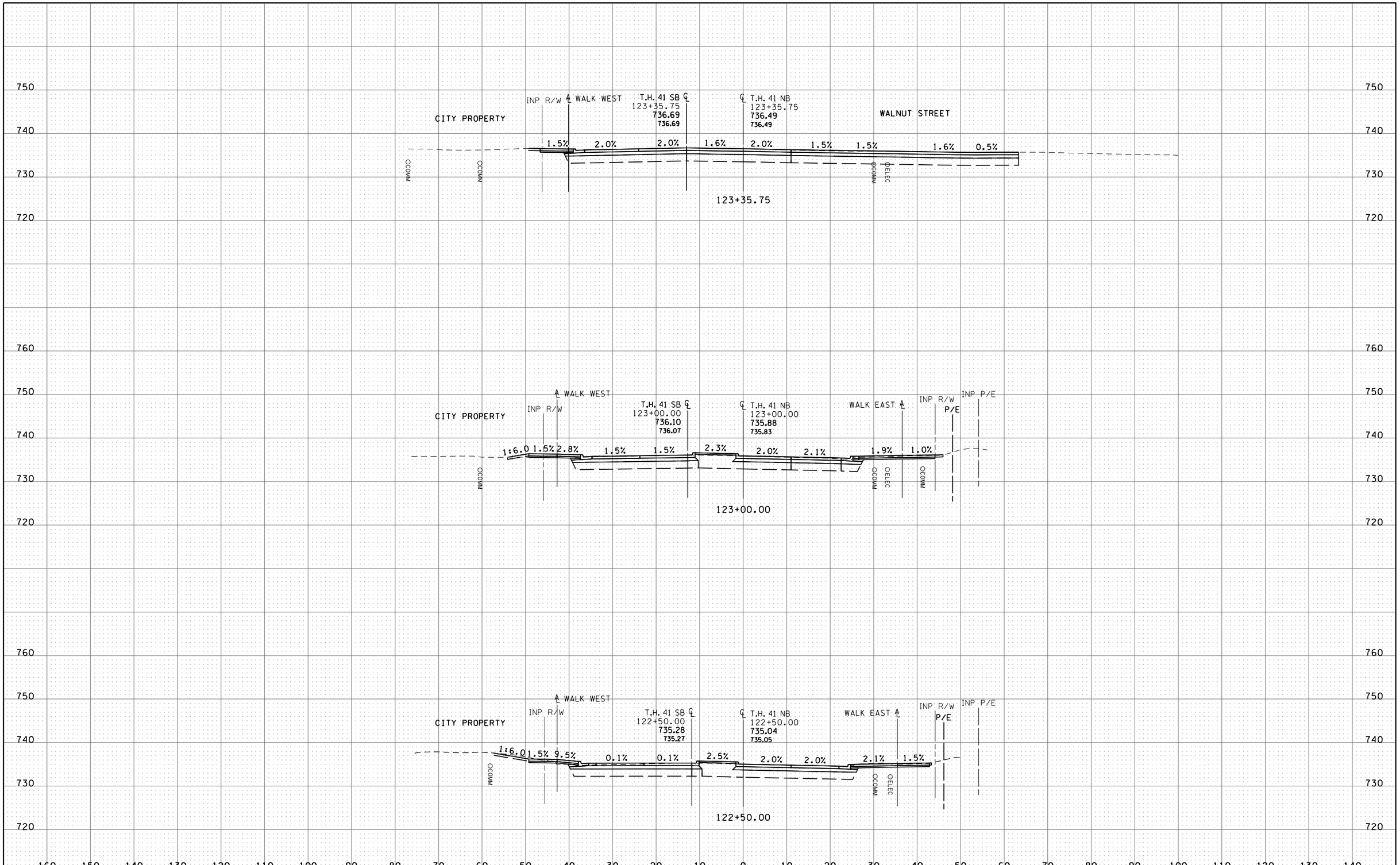


STA. 121+20.00 - 122+00.00

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

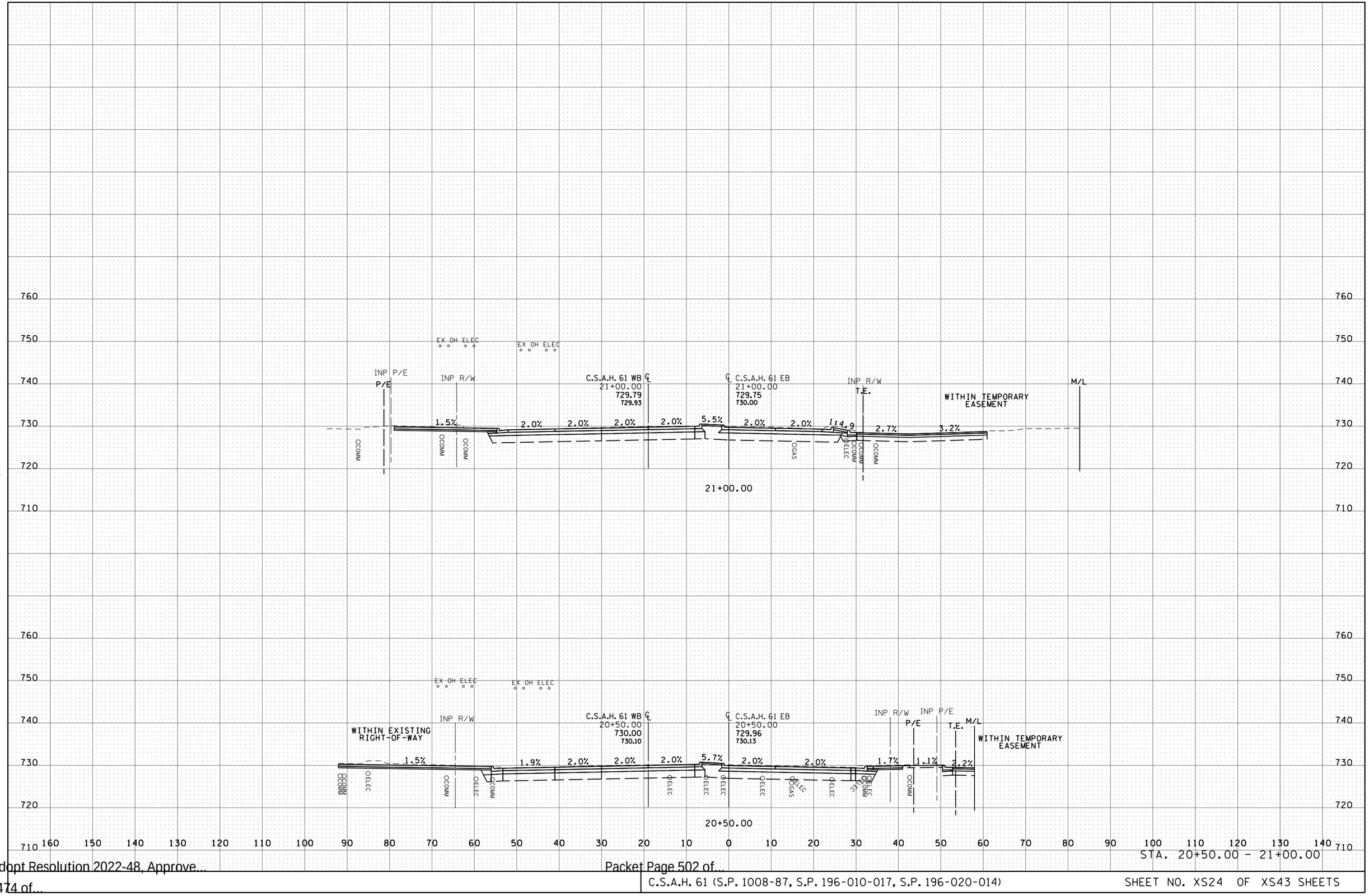
SHEET NO. XS22 OF XS43 SHEETS

pdf-B and W.pltcfg bmi.tbl H:\CHKA\OT4123211\CAD\MS\plans\XS\cd123211_xp_TH41.dgn
1:31:01 PM
6/18/2022



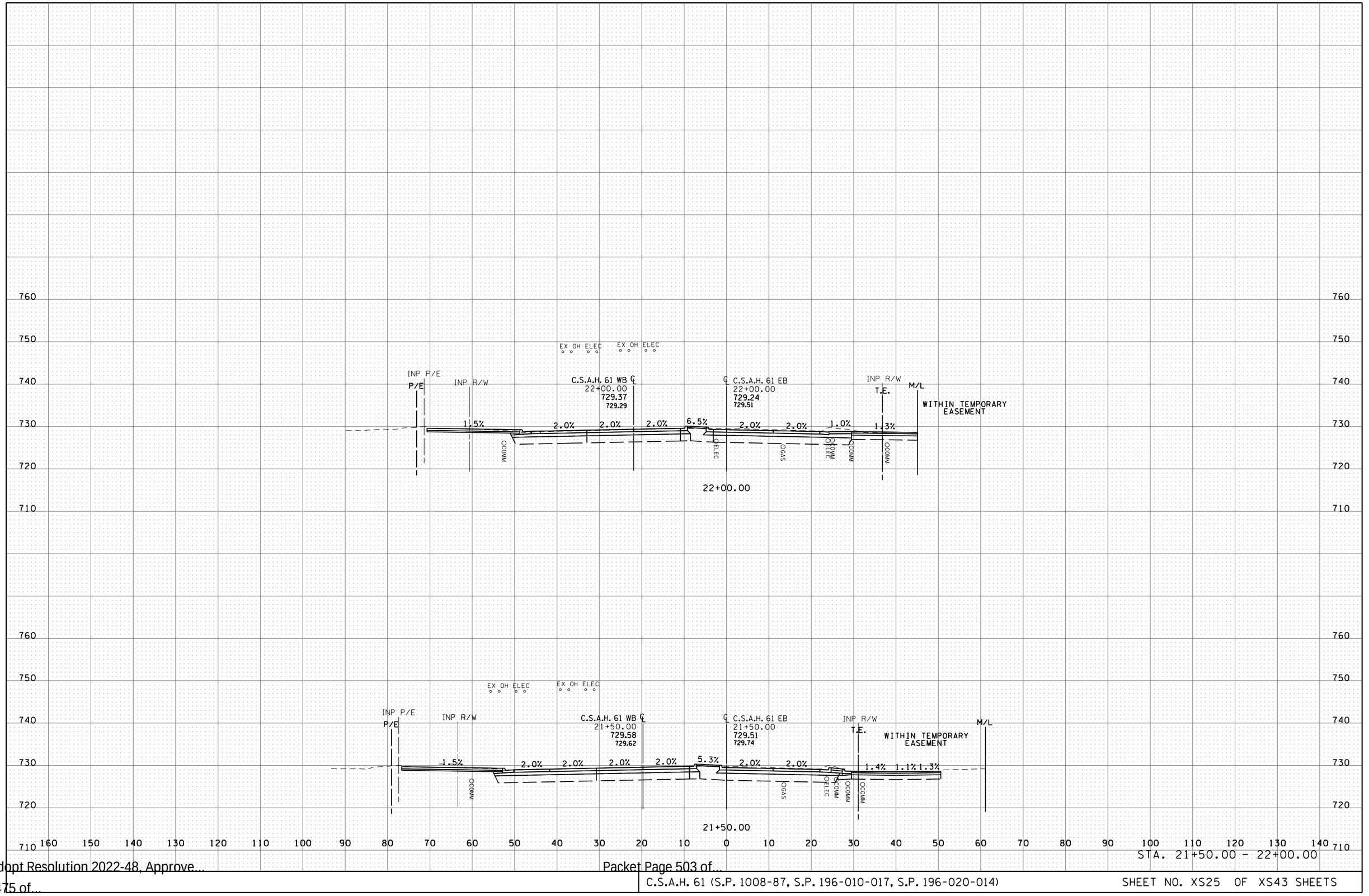
pdf-B and W.pltcfg bmi.tbl
1:31:03 PM H:\CHKA\OT4123211\CAD\MS\plans\XS\cd123211_xp_TH41.dgn
omb 7/18/2022

T.H. 41 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS23 OF XS43 SHEETS



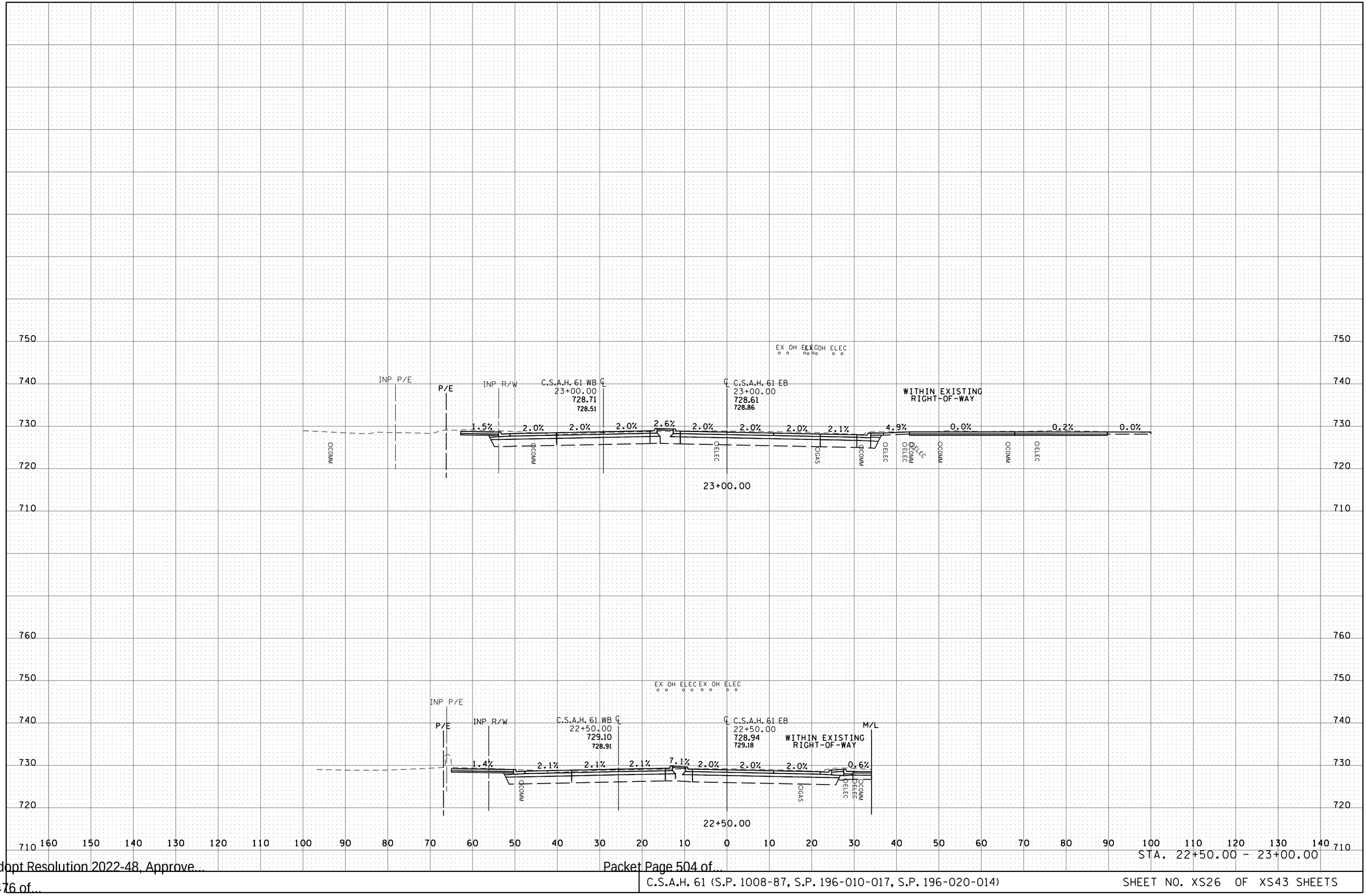
pdf-B and W.pltcfg bmi.tbl H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn
1:31:04 PM
7/18/2022 tomsj

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS24 OF XS43 SHEETS



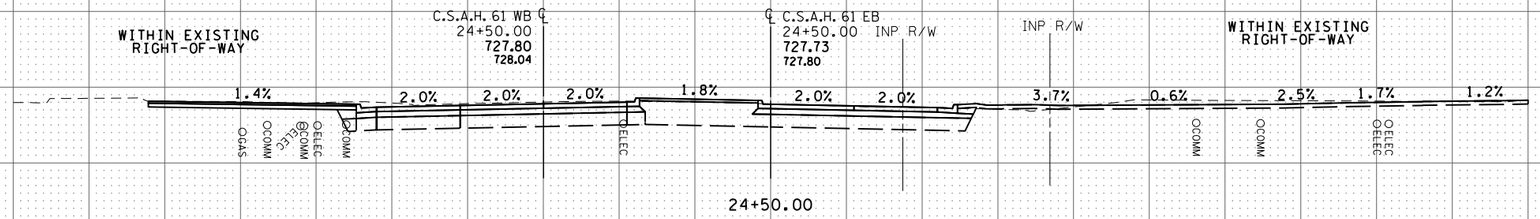
pdf-B and W.pltcfg bmi.tbl H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn
1:31:05 PM
7/18/2022

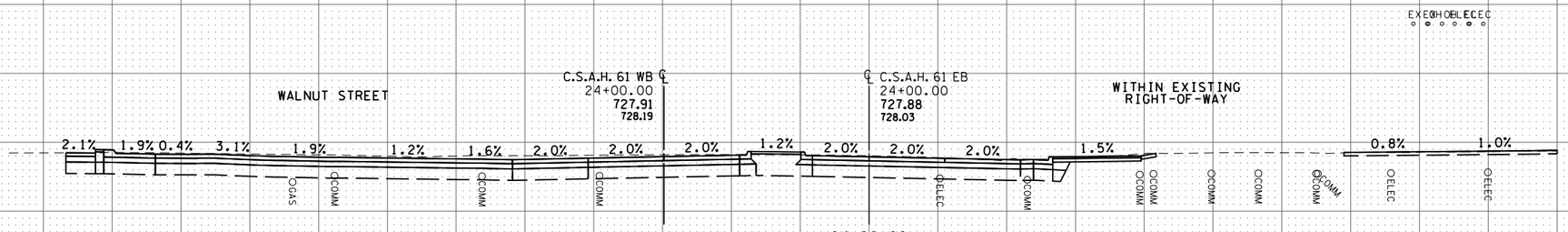
C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS25 OF XS43 SHEETS

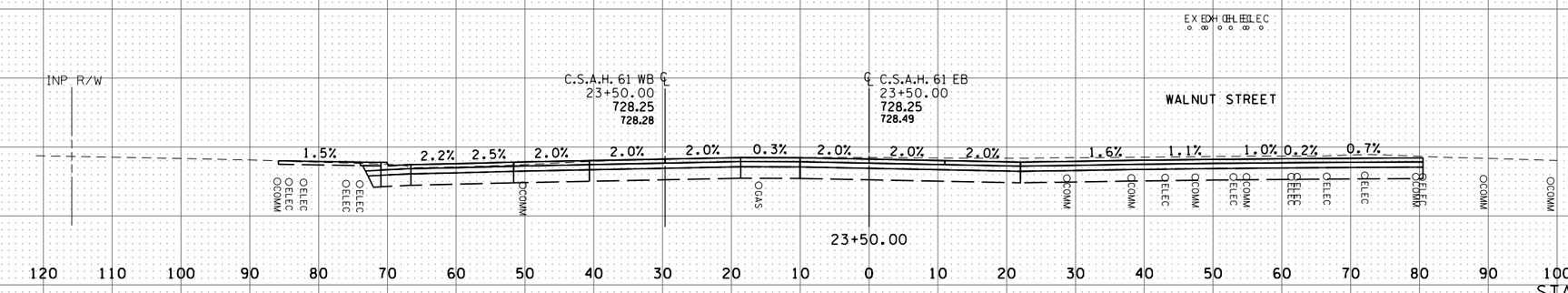


pdf-B and W.pltcfg bmi.tbl H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn
1:31:06 PM
7/18/2022 tomb

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS26 OF XS43 SHEETS

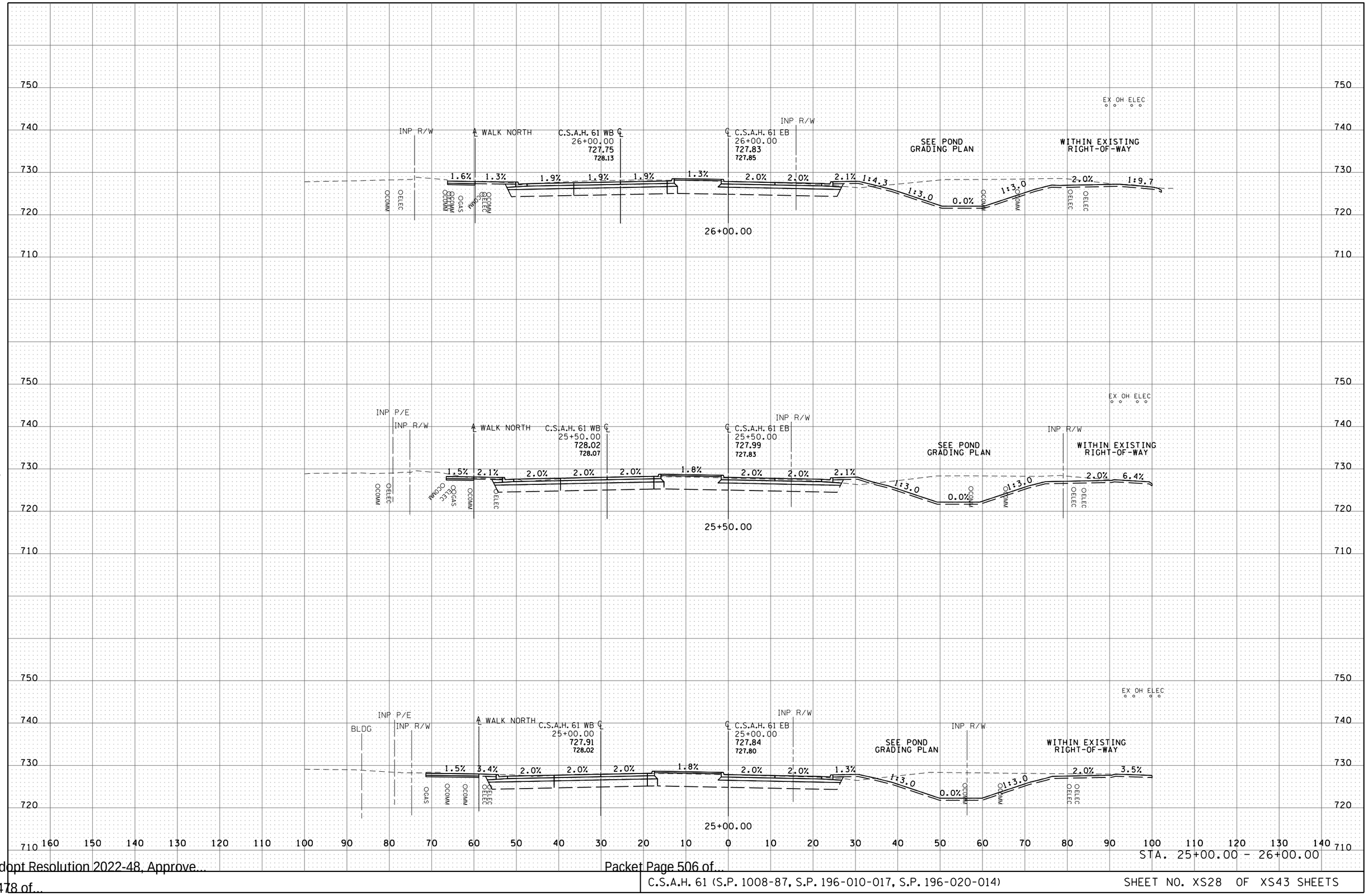






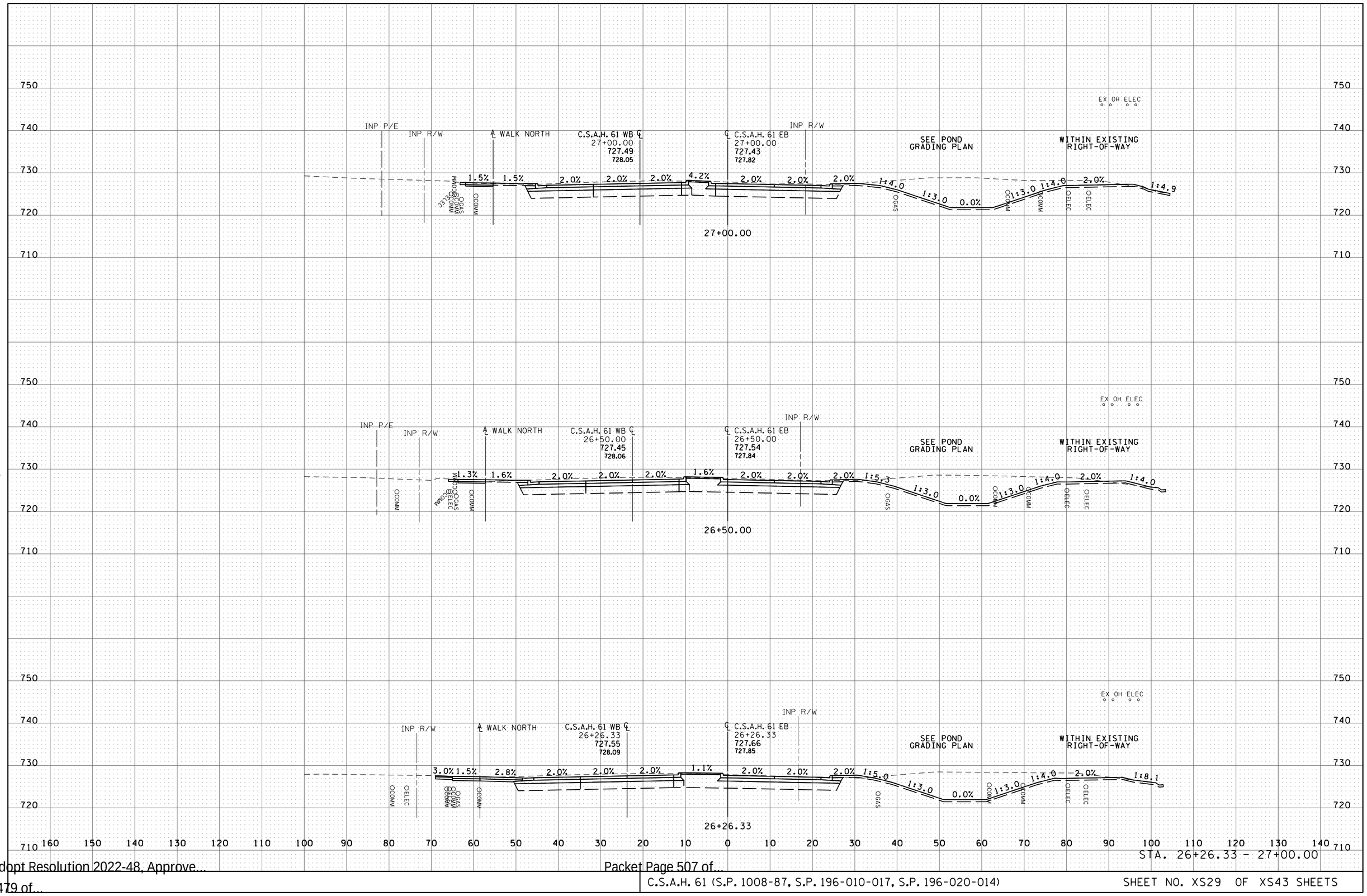
pdf-B and W.pltcfg bmi.tbl
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7/18/2022 bmi

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS27 OF XS43 SHEETS



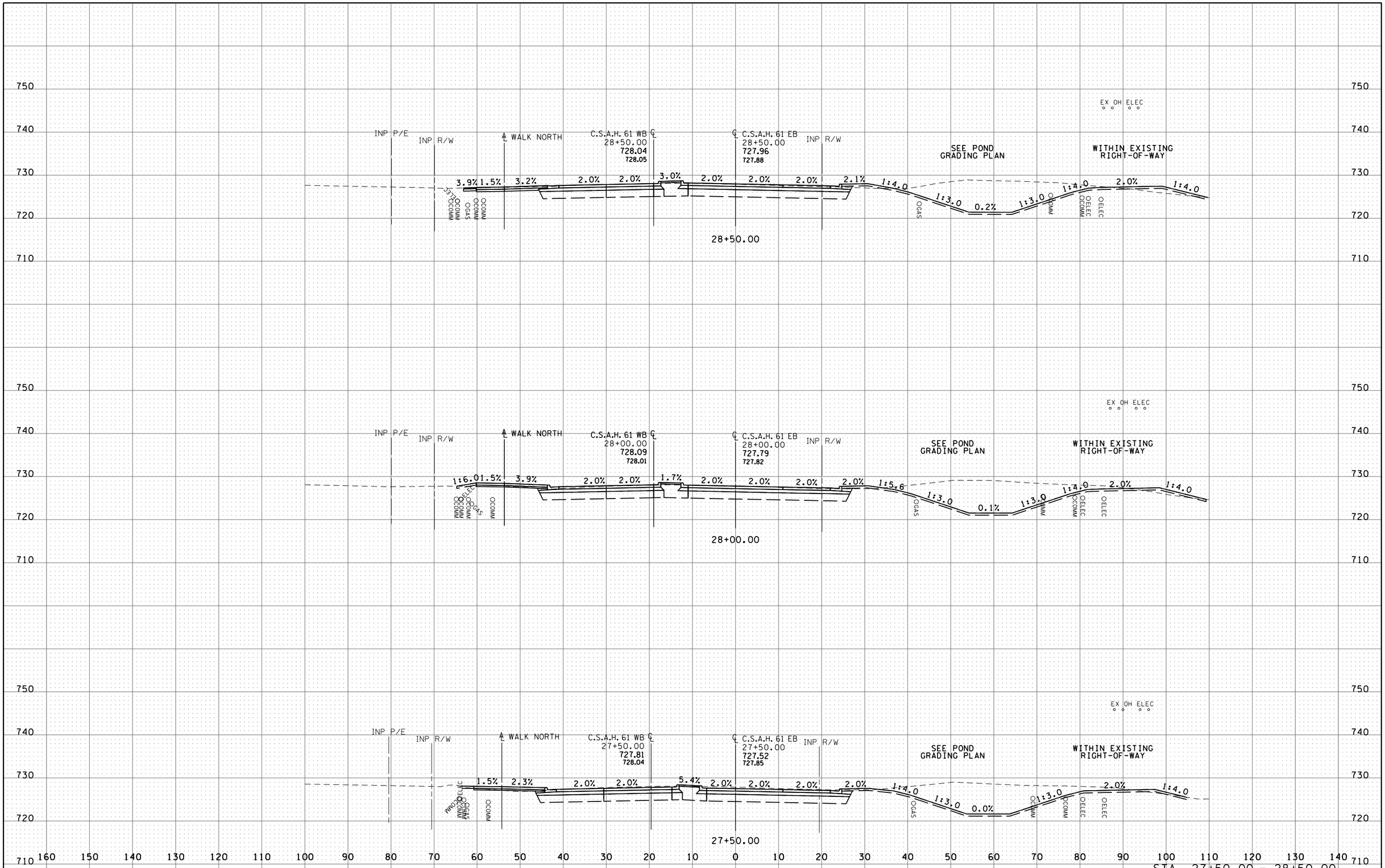
omb 7/18/2022 1:31:08 PM pdf-B and W.pltcfg bmi.tbl H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS28 OF XS43 SHEETS



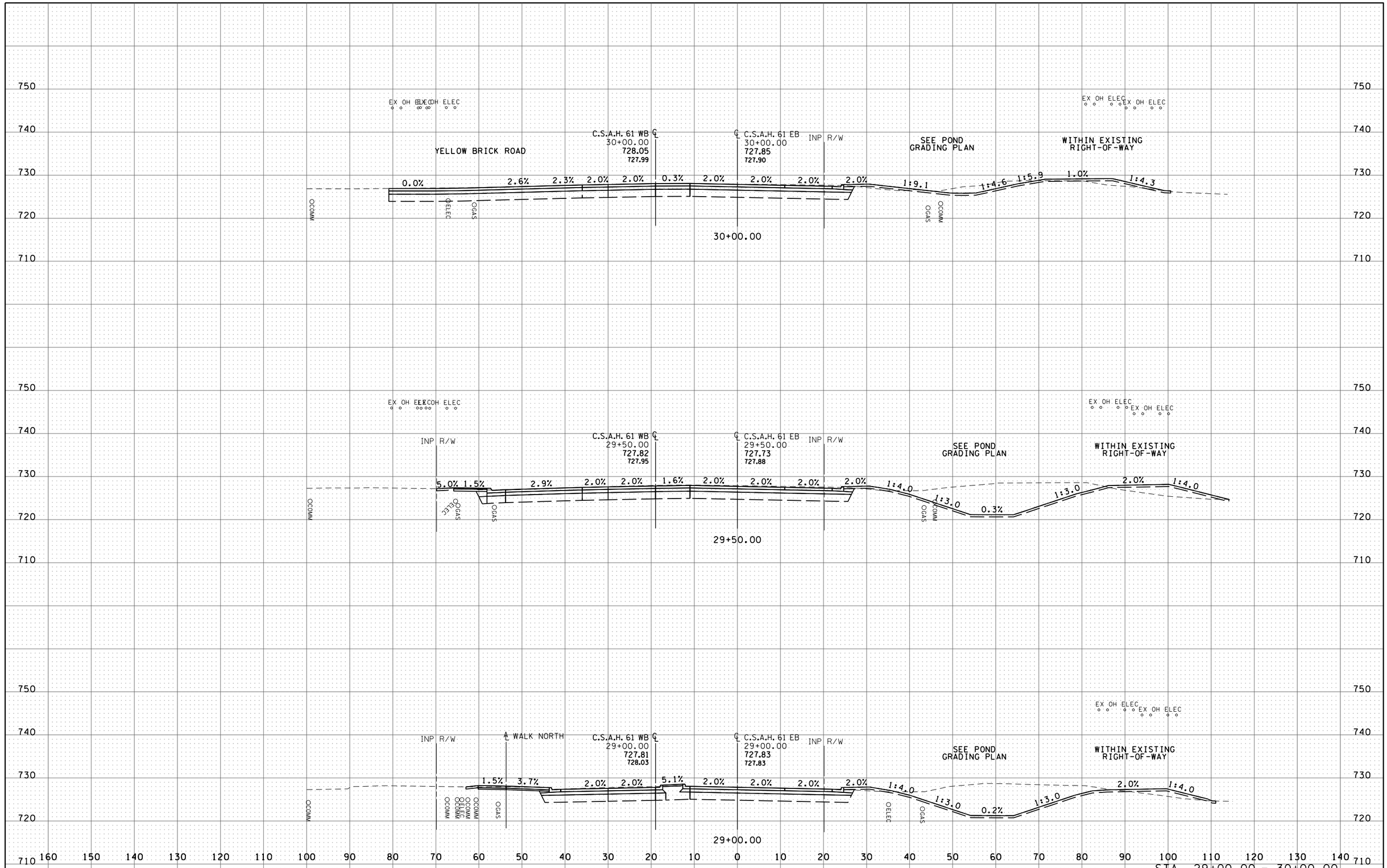
pdf-B and W.pltcfg bmi.tbl
1:31:09 PM H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn
omBU 2/18/2022

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS29 OF XS43 SHEETS



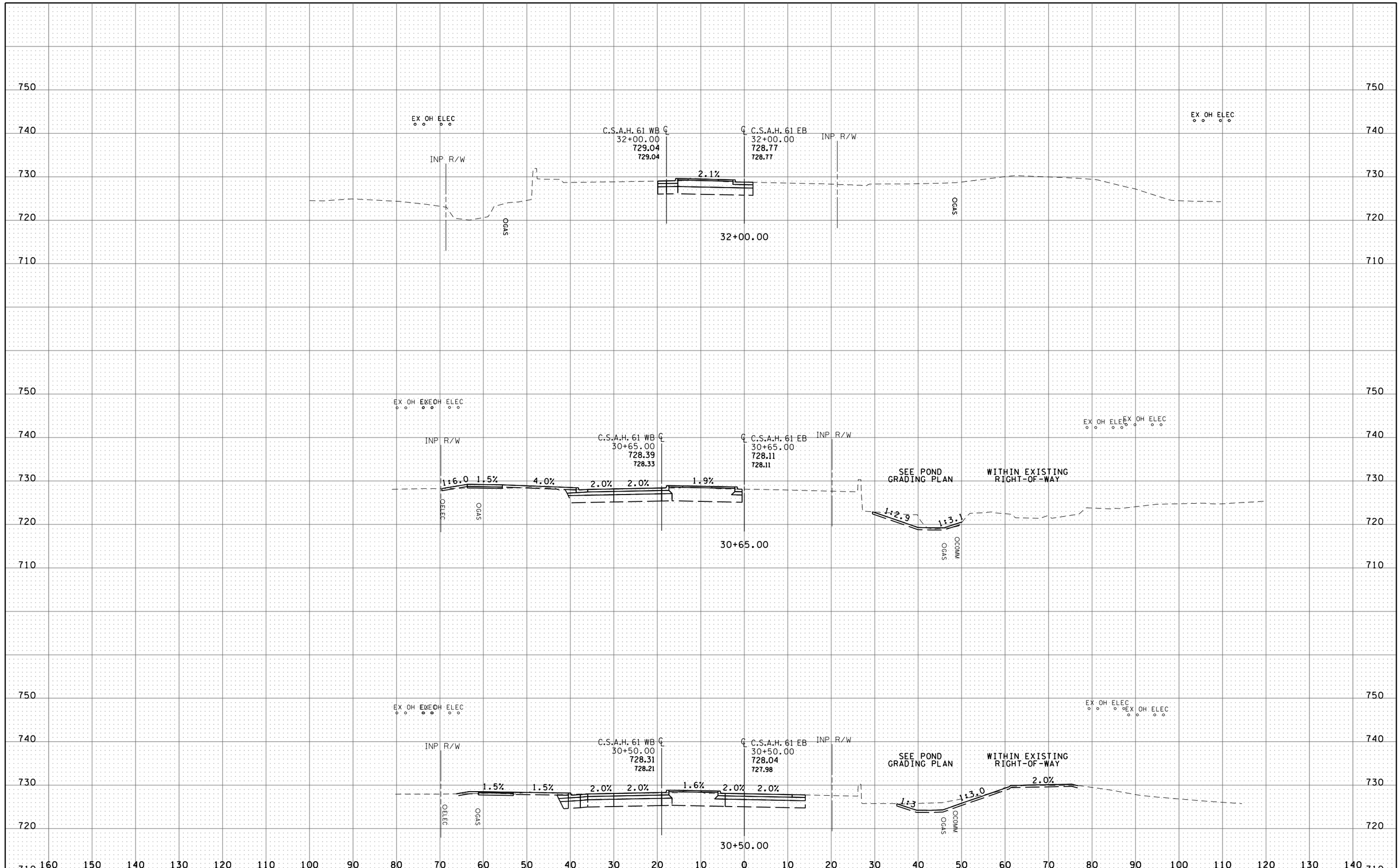
pdf-B and W.pltcfg bmi.tbl 1:31:10 PM H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn tomsbj 7/18/2022

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS30 OF XS43 SHEETS



pdf-B and W.pltcfg bmi.tbl
1:31:11 PM H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn
7/18/2022 tombu

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS31 OF XS43 SHEETS

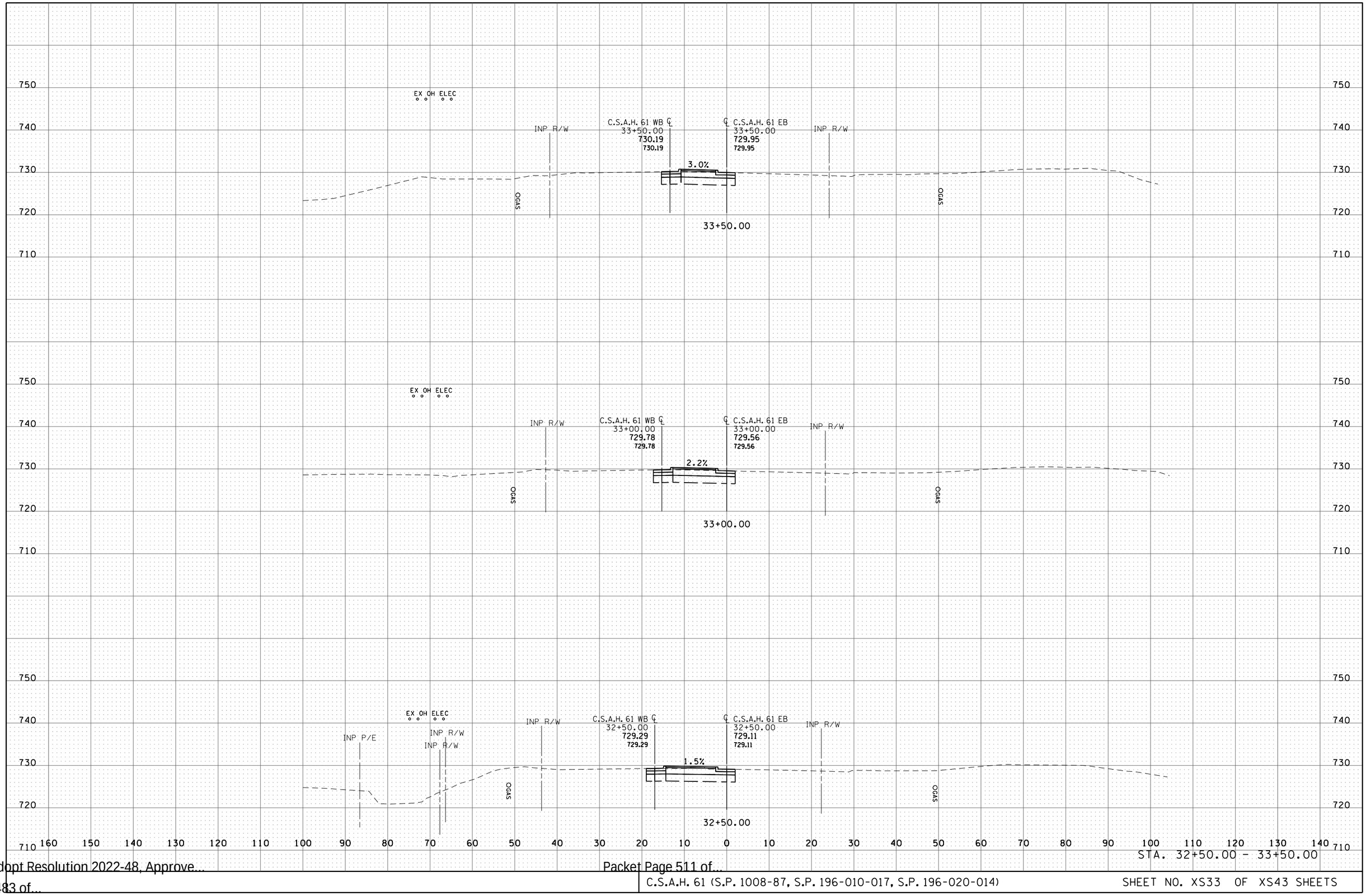


STA. 30+50.00 - 32+00.00

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

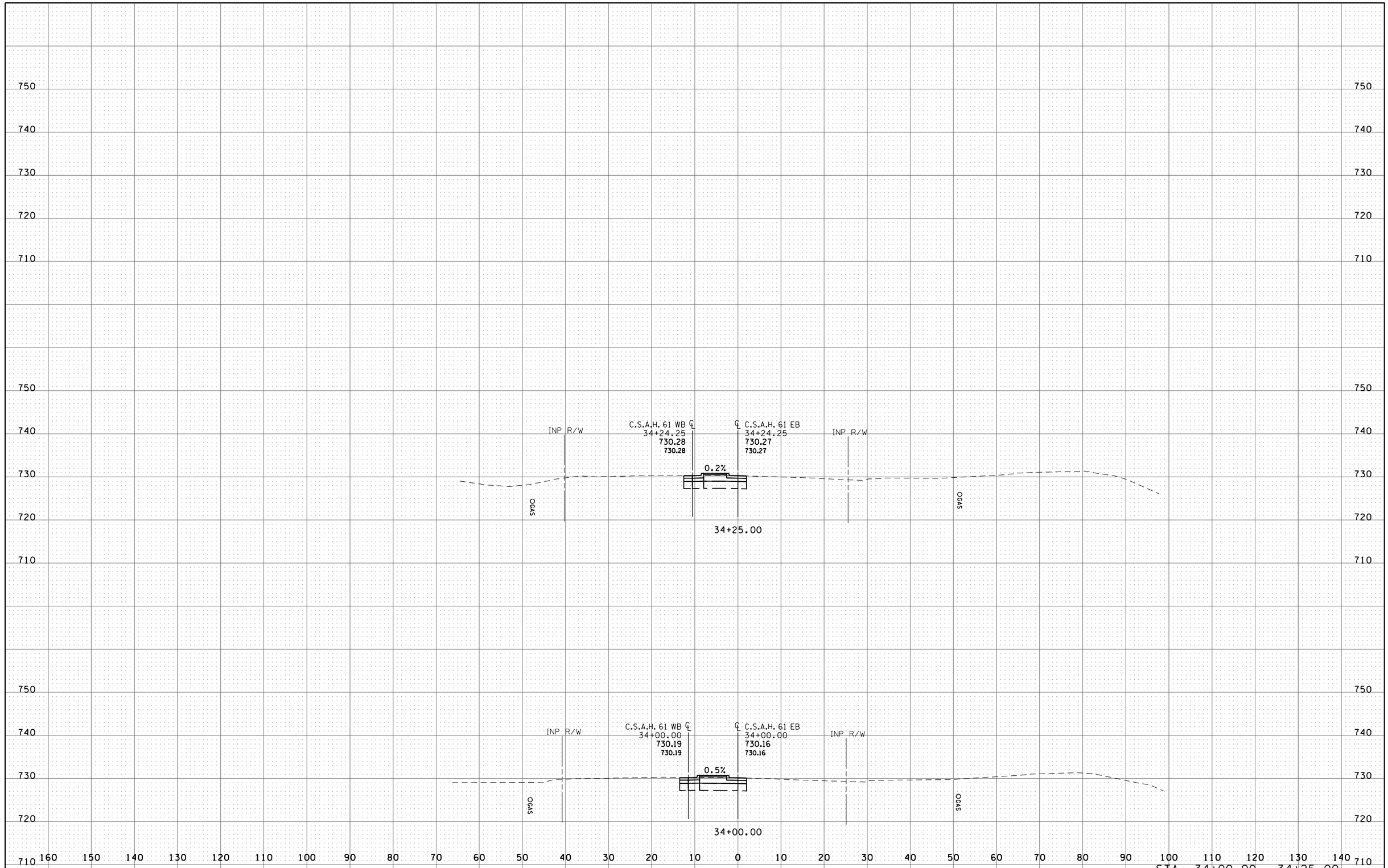
SHEET NO. XS32 OF XS43 SHEETS

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7/18/2022 bmi



pdf-B and W.pltcfg bmi.tbl
1:31:13 PM H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_CSAH61.dgn
2/18/2022 ombu

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS33 OF XS43 SHEETS

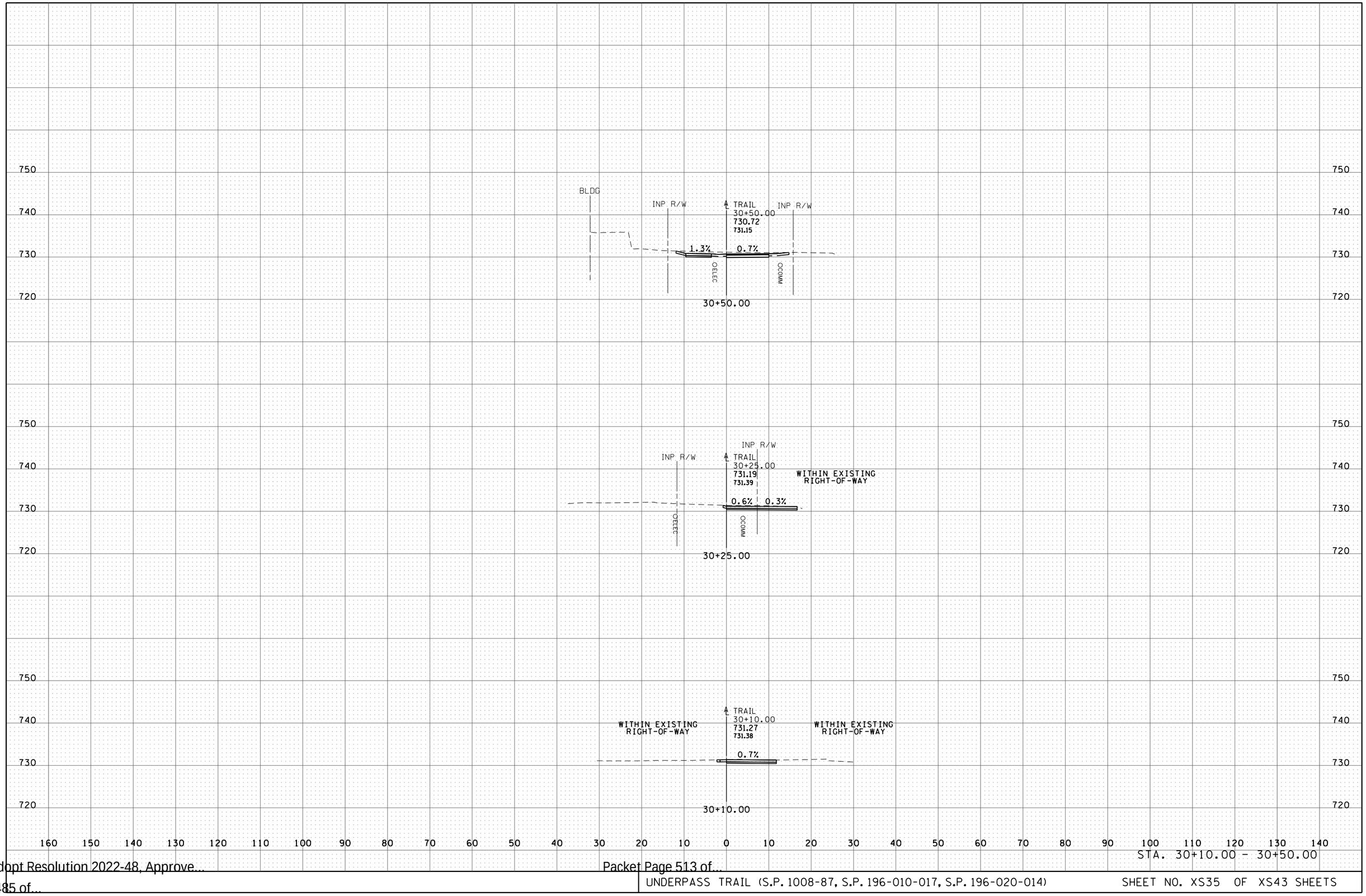


STA. 34+00.00 - 34+25.00

C.S.A.H. 61 (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

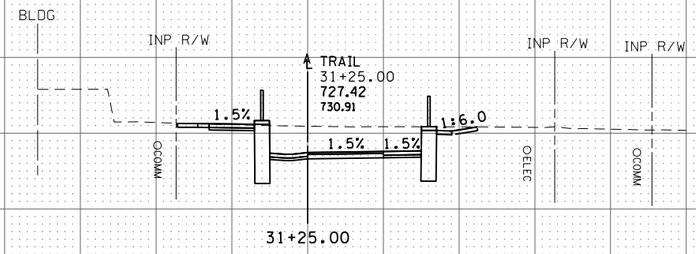
SHEET NO. XS34 OF XS43 SHEETS

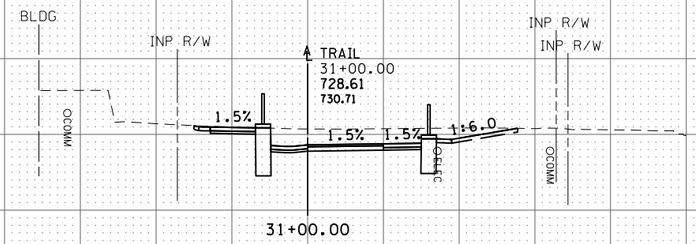
pdf-B and W.pltcfg bmi.tbl
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3/18/2022 ombu

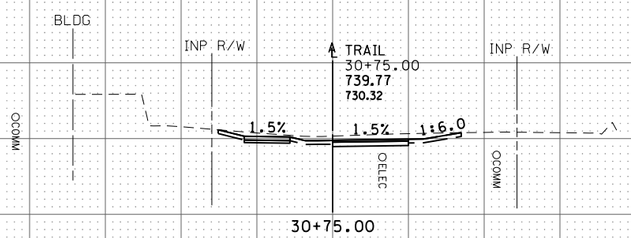


pdf-B and W.pltcfg bmi.tbl
1:31:15 PM H:\CHKA\OT4123211\CAD\MS\plans\XS\cd123211_xp_UNDERPASS.dgn
7/18/2022 ombu

UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS35 OF XS43 SHEETS







NOTES:

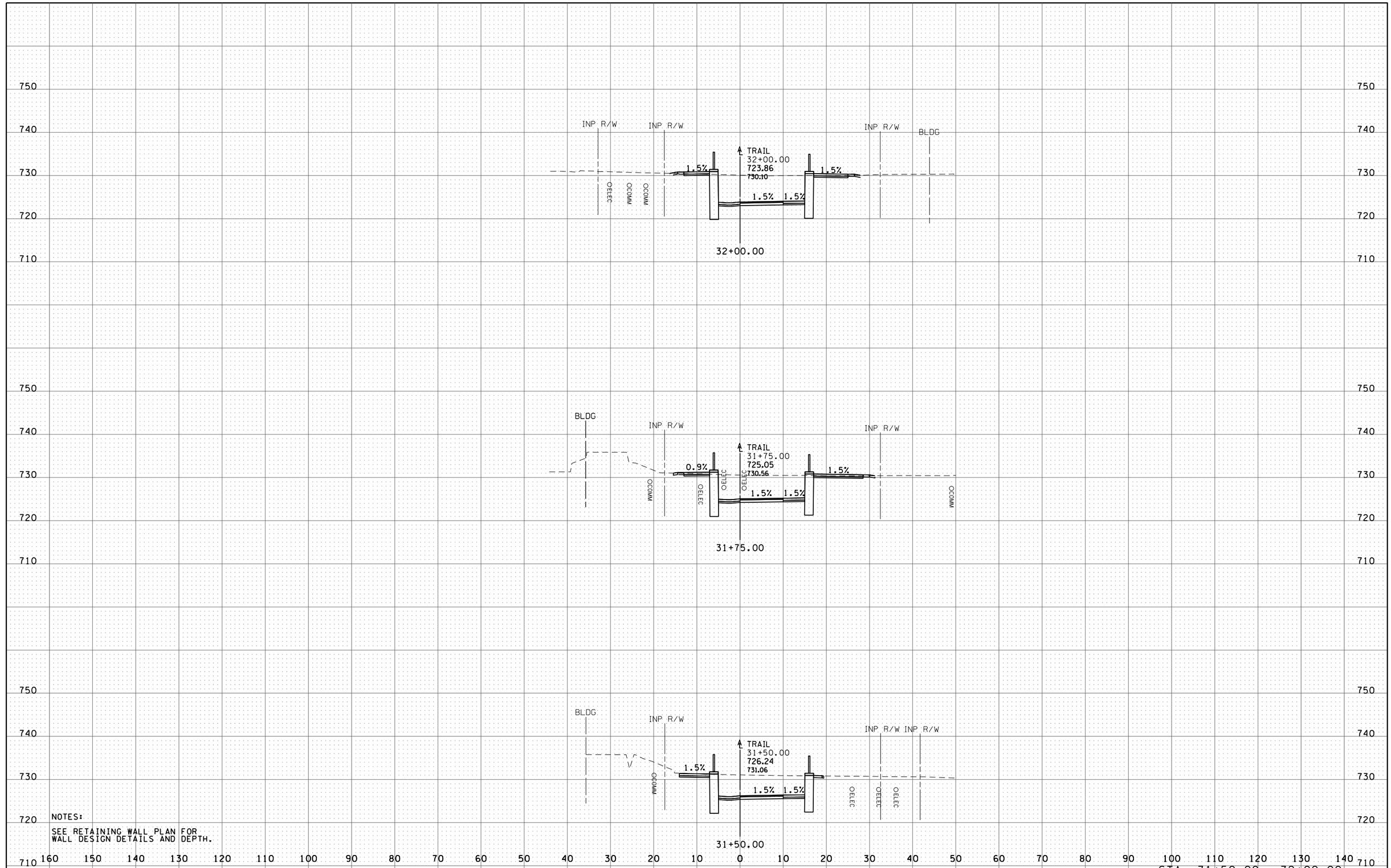
SEE RETAINING WALL PLAN FOR WALL DESIGN DETAILS AND DEPTH.

STA. 30+75.00 - 31+25.00

UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

SHEET NO. XS36 OF XS43 SHEETS

pdf-B and W.pltcfg bmi.tbl
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7/18/2022 ombu

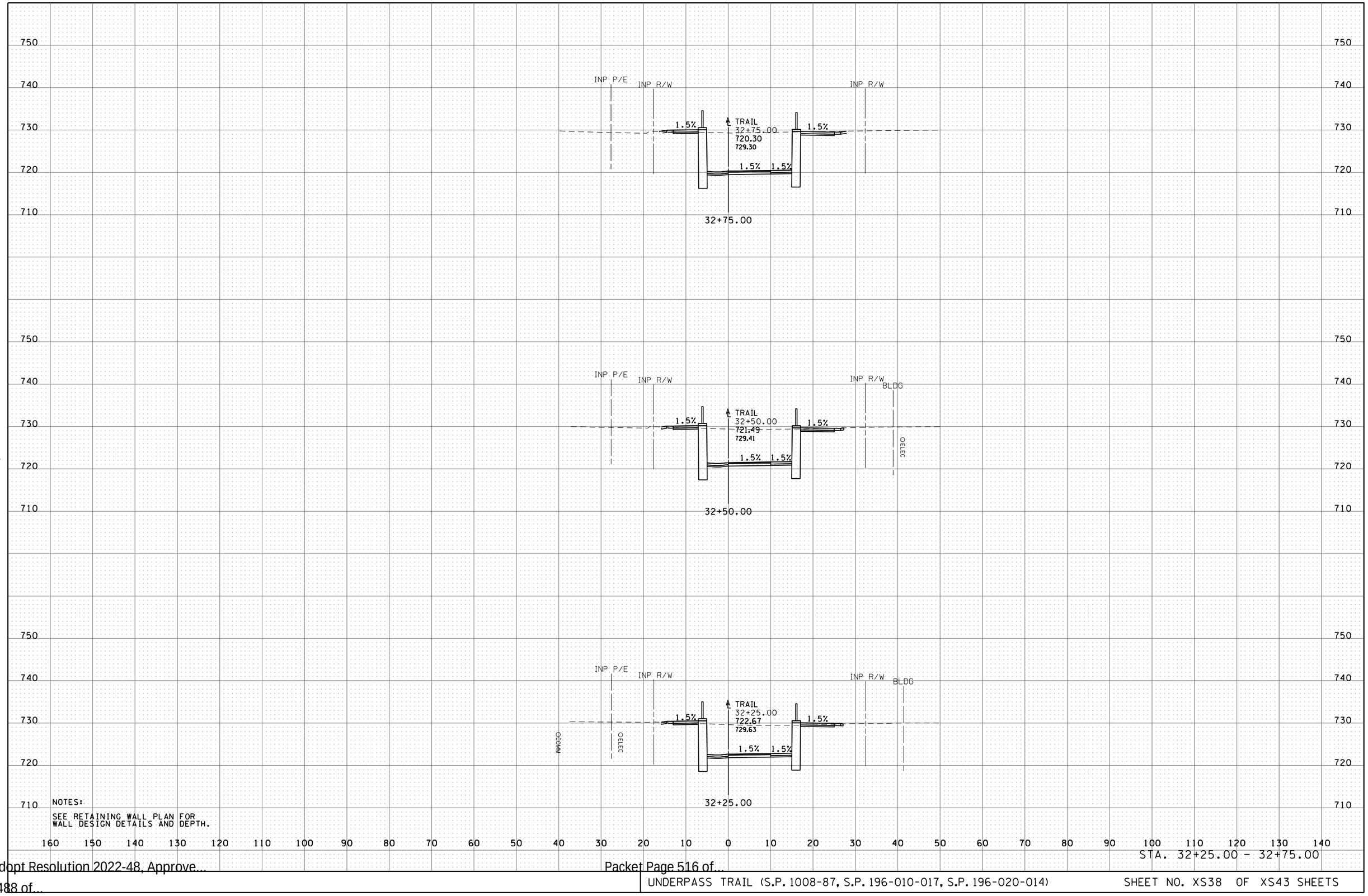


NOTES:

SEE RETAINING WALL PLAN FOR
WALL DESIGN DETAILS AND DEPTH.

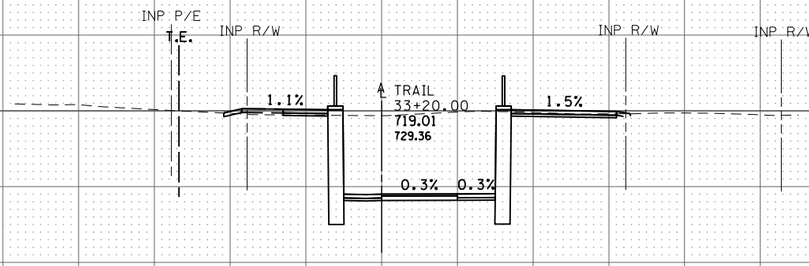
pdf-B and W.pltcfg bmi.tbl
1:31:17 PM H:\CHKA\OT4123211\CAD\MS\plans\XS\cd123211_xp_UNDERPASS.dgn
7/18/2022 omb

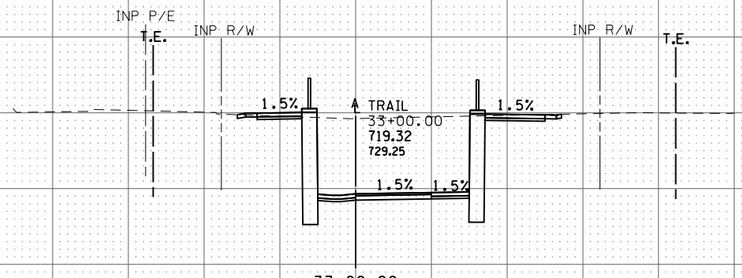
UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS37 OF XS43 SHEETS



pdf-B and W.pltcfg bmi.tbl H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_UNDERPASS.dgn
1:31:18 PM
6/18/2022

UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS38 OF XS43 SHEETS





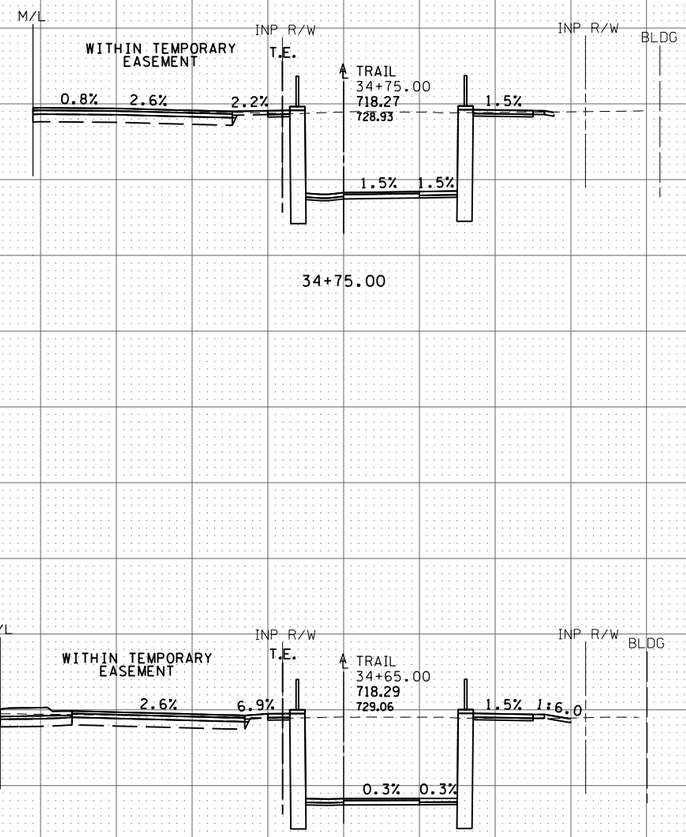
NOTES:

SEE RETAINING WALL PLAN FOR WALL DESIGN DETAILS AND DEPTH.

STA. 33+00.00 - 33+20.00

UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS39 OF XS43 SHEETS

H:\CHKA\0T4123211\CAD\MS\plans\XS\cdl23211_xp_UNDERPASS.dgn
pdf-B and W.pltcfg bmi.tbl
1:31:19 PM
2/16/2022



NOTES:

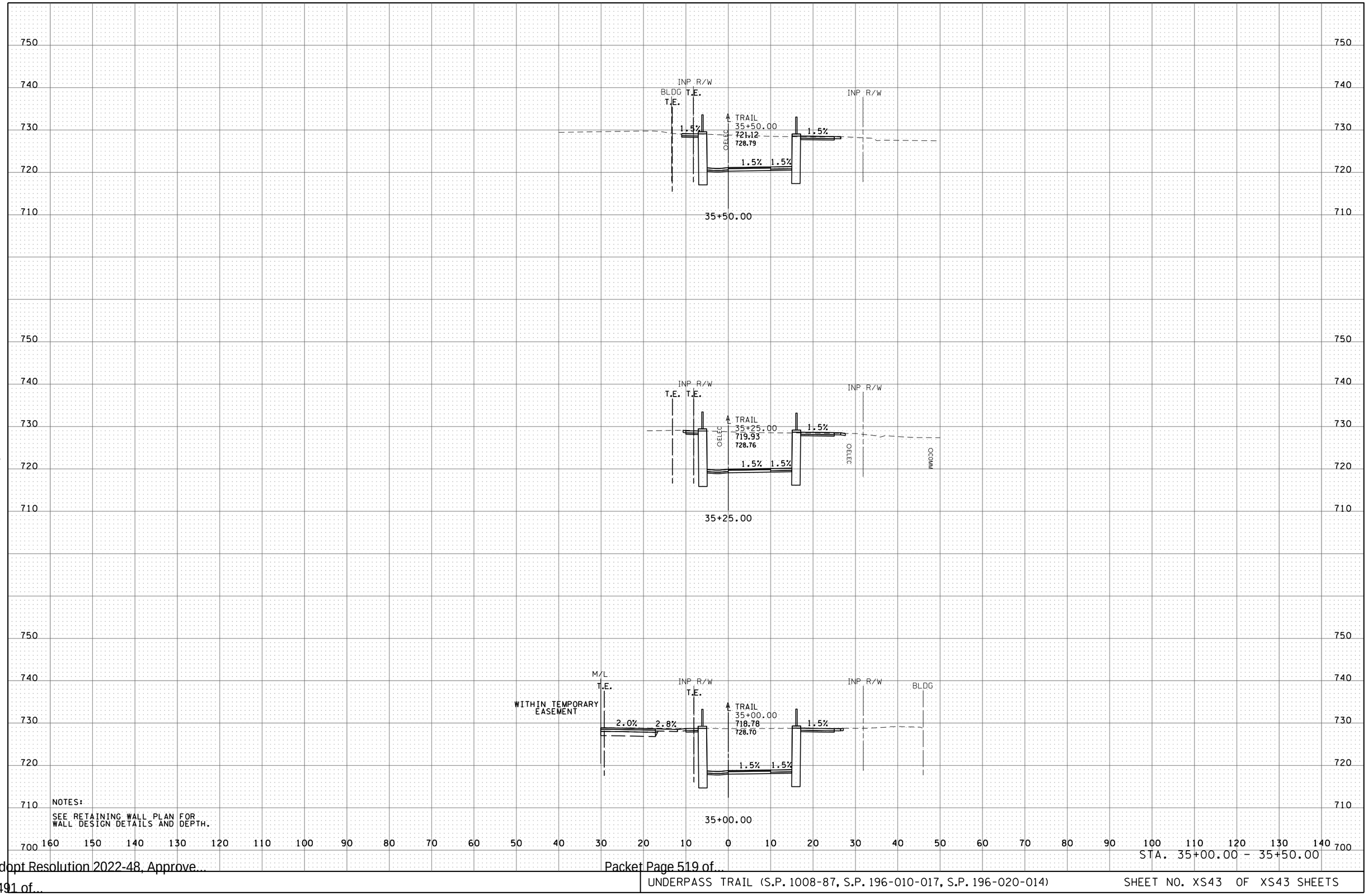
SEE RETAINING WALL PLAN FOR WALL DESIGN DETAILS AND DEPTH.

STA. 34+65.00 - 34+75.00

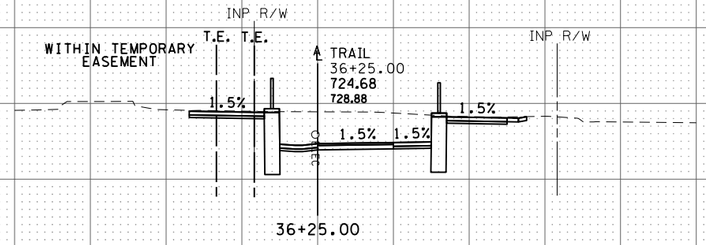
UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

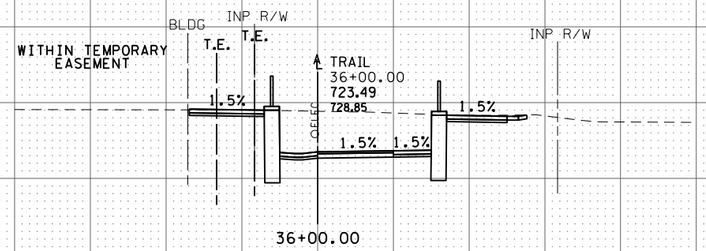
SHEET NO. XS40 OF XS43 SHEETS

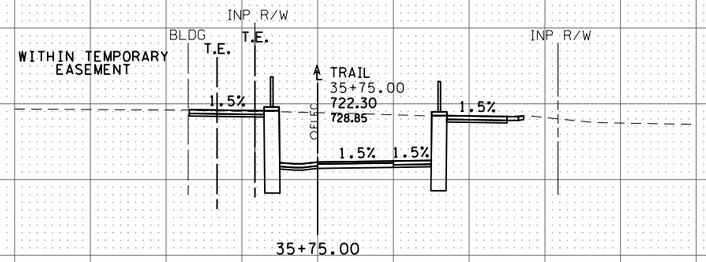
omsu 2/15/2022 1:31:20 PM H:\CHKA\0T4123211\CAD\MS\plans\XS\cdl23211_xp_UNDERPASS.dgn pdf-B and W.pltcfg bmi.tbl



pdf-B and W.pltcfg bmi.tbl
H:\CHKA\DT4123211\CAD\MS\plans\XS\cd123211_xp_UNDERPASS.dgn
1:31:21 PM
omb 7/18/2022







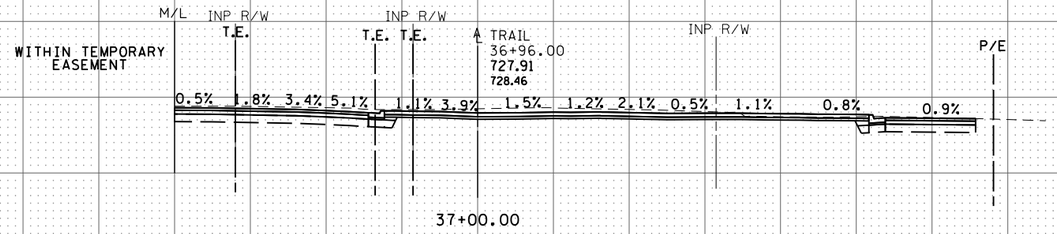
NOTES:

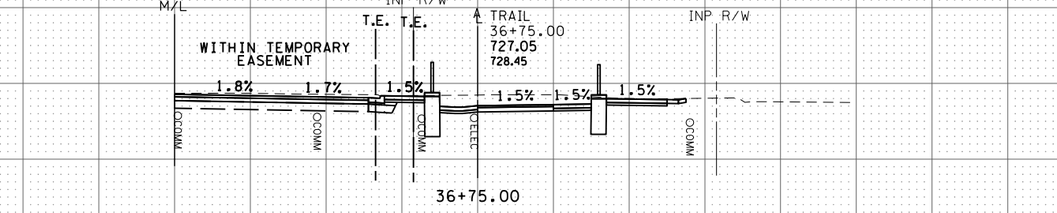
SEE RETAINING WALL PLAN FOR WALL DESIGN DETAILS AND DEPTH.

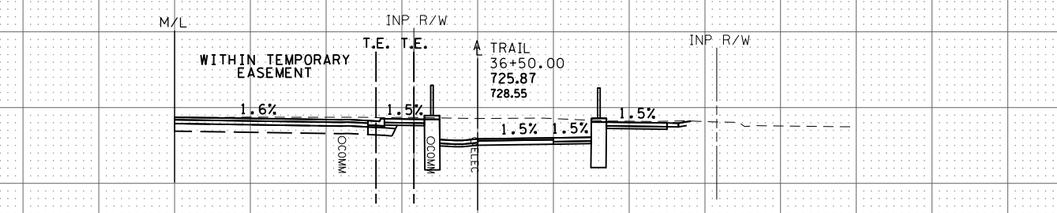
STA. 35+75.00 - 36+25.00

UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014) SHEET NO. XS42 OF XS43 SHEETS

pdf-B and W.pltcfg bmi.tbl H:\CHKA\0T4123211\CAD\MS\plans\XS\cd123211_xp_UNDERPASS.dgn 1:31:22 PM 3/18/2022 amdu







NOTES:

SEE RETAINING WALL PLAN FOR WALL DESIGN DETAILS AND DEPTH.

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

STA. 36+50.00 - 36+96.00

UNDERPASS TRAIL (S.P. 1008-87, S.P. 196-010-017, S.P. 196-020-014)

SHEET NO. XS43 OF XS43 SHEETS

pdf-B and W.pltcfg bmi.tbl
1:31:23 PM H:\CHKA\OT4123211\CAD\MS\plans\XS\cd123211_xp_UNDERPASS.dgn
7/18/2022 ombu

CITY OF CHASKA

CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 4/18/2022 RESOLUTION NO. 2022-48

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

A Resolution Approving the Plans & Specifications and Authorizing Bids for the Downtown Chaska TH 41/CSAH 61 Project

WHEREAS, pursuant to City Council authorization, the City Engineer has prepared plans and specifications for Downtown Chaska TH 41/CSAH 61 Project;

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Chaska, Minnesota, does hereby approve:

1. Such plans and specifications as prepared by Bolton & Menk, copies of which are attached hereto and made a part hereof;

2. The City Clerk shall prepare and cause to be published in the Chaska Herald an advertisement for bids upon the making of such improvements under such approved plans and specifications. Said bid process shall adhere to all provisions of State Statute.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of May 2022.

_____

Mark Windschitl, Mayor

Attest: _____

Deputy Clerk

REQUEST FOR ACTION
CHASKA CITY COUNCIL
4/18/2022

Subject: **Letter of Support – Trunk Highway 5 State Legislation**

Prepared By: **Elise Durbin, Assistant City Administrator**

The Southwest Corridor Transportation Coalition, of which the City of Chaska is a member, has been advocating for a number of projects including the expansion of Highway 212 and Trunk Highway 5 improvements.

Carver County and other local partners have completed the Arboretum Area Transportation Plan, of which the Highway 5 Mobility Project is a part of it. Trunk Highway 5 not only serves local communities for housing and jobs, but it also serves as a major freight and commuter corridor as well as serving the Minnesota Landscape Arboretum. The project will look to not only expand the roadway to accommodate existing and future traffic, and make pedestrian and bicycle connections along the corridor, as well as important safety improvements.

Legislation has been introduced at the State Capitol requesting funding for Carver County so that they can complete the engineering, design, right of way acquisition, and construction improvements on Trunk Highway 5 from Minnewashta Parkway to Trunk Highway 41. The Southwest Corridor Transportation Coalition is seeking letters of support from its members to be forwarded onto the Capital Investment Committee.

CITY COUNCIL ACTION REQUESTED

Motion to authorize the Mayor to sign a letter of support for Trunk Highway 5 state legislation.

Chaska

April 18, 2022

TO: Members of the Capital Investment Committee

RE: SF3918/HF4171 and SF3919/HF4170

Dear Legislator:

I am writing to urge your support for legislation that provides a $20 million grant to Carver County for important safety and mobility improvements to Trunk Highway 5.

Carver County and local partners recently completed the Arboretum Area Transportation Plan which identifies the Highway 5 Mobility project as part of the long-range vision for planning for significant growth within the Twin Cities Metropolitan Area.

Highway 5 provides access to the Minnesota Landscape Arboretum - a nationwide destination for 500,000 annual visitors with growth plans expected to attract an additional 100,000 visitors per year. In addition, Highway 5 serves as a major freight and commuter corridor. The Highway 5 Mobility Project allows the Arboretum and the Cities of Chanhassen, Chaska, Victoria, and Carver County to realize their full growth potential for jobs and housing.

The project will include roadway expansion to 4 lanes, a 1,900 ft long bridge to elevate the roadway and reconnect Lake Minnewashta, a pedestrian underpass under Highway 5 to connect to the Regional Trail and capacity improvements at the Highway 5 and Highway 41 intersection.

Today, Highway 5 is traveled by 7,000 vehicles (800 heavy commercial) a day, experienced 65 crashes from 2014-2018 (3x state average) and will see 180,000+ hours/year peak period delay by 2040. Today there are often 2 mile backups on Highway 5 due to congestion. The Highway 5 Mobility project will reduce delays and improve safety in this heavily traveled and important corridor for the region.

I am writing to urge you to support legislation (SF3918/HF4170) which provides $20 million for a grant to Carver County to complete the preliminary engineering, environmental documentation, final design, right-of-way acquisition, and construction of improvements to marked Trunk Highway 5 from Minnewashta Parkway to marked Trunk Highway 41 in the city of Chanhassen. This bill will fund the mainline highway expansion, cross streets, off-street trails, a bridge over Lake Minnewashta wetlands, utility relocations, and installations.

Thank you for your consideration of this important capital project for inclusion in this year's capital budget bill.

Sincerely,

_____

Mark Windschitl
Mayor

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: **Reserve at Autumn Woods (fka Wagner Woods) – Final Plat**

Applicant: Lennar

Location: 9430 Audubon Road; west of Audubon Road (CR 15), south of Autumn Woods Drive

Case No.: 2022-12

Synopsis: Applicant seeks to obtain approval of a 86 lot development on approximately 45 acres of land owned by the Wagner family

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt Resolution

BACKGROUND

Autumn Woods and Autumn Woods East abut the subject property. These plats were approved in September 1982 (Autumn Woods) and September 1994 (Autumn Woods East). Autumn Woods East 2nd Addition was approved October 1994, which included Ironwood Boulevard's right-of-way (ROW) stubbing at the southern edge of Wagner's property (9430 Audubon Road). This was with anticipation of the Wagner developing and connecting into such street.

In May 2021, the Concept Plan was approved for Wagner Woods (102 lots). At this time there was significant involvement from the neighboring residents with concerns pertaining to density, lot sizes, traffic/access, trail continuity, and being a part of the Jonathan Association. The City and developer met with the neighbors of Autumn Woods after Concept approval to discuss some changes to the plans. Those changes are reflected below and were incorporated into the Preliminary Plans.

In October 2021, the Preliminary Plat and Rezoning (PRD-79) were approved for Reserve at Autumn Woods.

CONCERNS RAISED IN CONCEPT PLAN AND HOW THE PLANS ADDRESS THESE:

Density: The original concept plan proposed 102 single-family lots. The plan proposes 86 single-family lots; this is a 16 lot decrease from previous. The density changes from 2.57 units/acre to 2.17 units/acre.

Lot Sizes: The original concept plan proposed two different types of lots; 50 foot lots (27 lots) adjacent to Audubon Road, and 65 foot lots (75 lots). The plan proposes 55 foot lots (20 lots) adjacent to Audubon Road, 65 foot lots (52 lots) and 75 foot lots (14 lots). The 75 foot lots are primarily situated on edges that abut existing Autumn Woods lots. In addition to lot sizes, the development will also provide 7.5 foot side setbacks for all lots. Previously 5 feet was shown on the 50 foot wide lots.

Traffic/Access: The original concept plan proposed access onto Autumn Woods Drive to the north, and connecting into Ironwood Boulevard to the south. The plan proposes the same layout, but will also include a direct right-out access onto Audubon Road on the eastern edge of the development. This access has been reviewed and approved by Carver County. In addition, dedicated left and right turn lanes will be added to Autumn Woods Drive at the Audubon Road intersection to improve traffic movement. The south side of the development will also show Ironwood Boulevard tapering in four (4) feet so as to create more traffic calming measures for people traveling along this street. Stop signs will be installed at the Ironwood Boulevard and Butternut Drive intersection. A traffic study was also conducted to evaluate the proposed traffic and accesses into/out of the development as well as all major accesses of Autumn Woods. The study concluded that access from Autumn Woods Drive to the north and Ironwood Boulevard to the south provide the best traffic layout for the site and surrounding roadways; the right-out access will not provide significant decrease in delays at either access point. In addition, it showed that the development and surrounding streets/intersections in Autumn Woods will operate at serviceable levels once the development is fully built.

Trails: The concept plan showed the incorporation of trails to the stormwater ponds. There were comments raised in the concept plan review to show more trails that connect into the Jonathan trail system present in Autumn Woods. The plan proposes to incorporate more trail connections. One trail connection occurs on the south side of the site that will travel adjacent to the wooded area and wetland. Another trail connection is shown in the center of the site between the central block of homes and infiltration basin. This trail will generally line up with the entrance of the public park opening on the Northwest portion of the site. These new trail incorporations will be owned and maintained by the Jonathan Association.

Jonathan Association: Comments in the concept plan review encouraged the development to be a part of the Jonathan Association. The developer has been working with the Jonathan Association to get this development added to their HOA. The Jonathan Association will be owners of the tree preservation areas, trails, ponds, and other common areas. The City will maintain the ponds, however, as that is consistent with the other Autumn Woods developments.

Public Park: The concept plan showed the inclusion of a public park in the Northwest portion of the site totaling 2.65 acres. The plan shows a public park totaling 3.13 acres, which its layout and size is more consistent with Park Board comments received in Concept Plan. A wider opening into this park from the development is also shown, which helps preserve the cluster of trees that were highlighted by staff in the Concept Plan to save. This acreage of park does not satisfy park dedication requirements, and the developer will be required to pay the remaining dedication requirements as a fee.

Reflection of Autumn Woods Characteristics: The concept plan review encouraged the Preliminary Plan to be more reflective of the abutting Autumn Woods developments as it related to trails, streets, open space, and lot layouts. As noted above, more Jonathan trail connections will be incorporated; 3,187 linear feet (1,473 linear feet was shown in Concept). Due to the plan showing less lots than Concept, the street system is now less extensive. Open Space has been increased from Concept Plan to be 18.07 acres of the total site acreage (13.97 acres was shown in Concept). Previously, the Concept Plan showed a total of 22 lots that would directly abut the existing Autumn Woods neighborhoods on the west and south sides. The plan now

shows only 7 lots abutting the western side. These lots that directly abut will be 75 foot wide lots or be separated by a tree preservation area.

Buffer Trees: Buffer trees have been added to the southeasterly edge of the development as it abuts the rear yards of the three Autumn Woods lots on Butternut Drive.

Project Goals
The identified goals in creating this new neighborhood include the following:

- Chaska's High Quality of Life is Enhanced
  This community will offer existing Chaska residents, as well as various demographics of prospective buyers looking to live in Chaska, the opportunity to purchase a new home within the City. This neighborhood will provide homeowners access to retail, dining, golf courses, medical facilities, regional transportation, quality schools, parks and trails, and proximity to downtown Chaska. This community will also include a new City park.

- Taxpayers Perceive they are Getting Cost-Effective Service
  As an infill development, all infrastructure is in place to serve the new homes. The City will receive a significant amount of infrastructure impact fees of which little will be expended with this development. In addition, the new homes will generate tax revenue, a significant increase from the current agricultural status of the property. This will aid the City in providing cost-effective services to Chaska residents.

- Well-Planned and Orderly Community Development is a Priority
  Development of this infill site is highly efficient and desirable from an infrastructure and orderly growth standpoint. It makes efficient use of the significant amount of public infrastructure immediately accessible in public right-of-way. The proposed community with park dedication is consistent with the Low Density Residential and Park land use designations. And as mentioned, Lennar homes include quality materials including stone, vinyl, and LP in varying styles such as lap siding, shakes, and board and batten. Lennar's anti-monotony code will offer additional variation through the use of multiple color packages.

- A Sense of Community and Small Town Values are Maintained
  Adding new residents to this location is ideal from the standpoint of the broader community. These new residents will strengthen and add vibrancy to the nearby restaurants, retail establishments, schools, and City parks and trail system. Downtown businesses are also likely to benefit from the addition of this community.

- A Commitment to Excellence
  Excellence in this community will be evident in many ways:
  - The plan considers tree preservation and wetlands, parkland dedication, and landscape buffering.
  - Views of the neighborhood from the surrounding streets and within the neighborhood.
  - Attractiveness of the homes and quality of home construction.

Comprehensive Plan
The Comprehensive Plan guides this area to be Low Density Residential. The proposal tonight is consistent with this guidance.

CURRENT PROPOSAL
The 86-lot detached single-family proposal on approximately 45-acres of property is located west of County Road 15 (Audubon Road) and south of Autumn Woods Drive. A public park is proposed on the northwest corner of the site. Ironwood Boulevard stubs off on the south edge of the Wagner property, which will provide an access into this site. This new development will be an extension off Ironwood Boulevard, and will ultimately be part of the Autumn Woods development, which surrounds the south, west and northwest sides of the site. Additional access will be provided from Autumn Woods Drive to the north, and a right-out access will be provided to Audubon Road (CR 15) to the east in between Autumn Woods Drive and Butternut Drive.

Adjacent properties
The site is bound on the north by Autumn Woods Drive; to the west by residential (Autumn Woods); the south by residential (Autumn Woods East) and a Jonathan-owned park; and the east by County Road 15 (Audubon Road) and the city of Chanhassen.

City-owned property abuts the north and northwest portion of the site. The site does not have direct frontage on Autumn Woods Drive to the north, but will buy the necessary acreage to have direct frontage.

Existing Conditions
The subject property is located at 9430 Audubon Road on the eastern edge of Chaska, and contains a farmstead with multiple out-buildings (all of which will be removed). The site is 45.47 gross acres in size and is currently farmed agricultural land with wooded areas on the southwest and northwest edges. Five wetlands have been delineated on the site totaling approximately 5 acres in size. There are wooded steep slopes surrounding the wetland on the north edge of the property, as well as a small steep slope area on the southern edge of the property.

Land Use
The proposed 45-acre plan consists of 86 new single family lots. Three lot sizes/products are proposed within this development (dubbed as Lennar's 'Landmark Series' and 'Venture Series'); the Landmark Series; 66 lots) will be 65 and 75 foot wide lots and feature one-story and two-story homes with 3-car or 4-car garages (with basements); the Venture Series (20 lots) will be 55 foot wide lots and feature one-story and two-story homes with 2-car or 3-car garages (basement and slab on grade plans).

The area in question has been rezoned to a more appropriate zoning district, as Planned Residential Development (PRD-79).

Layout
The layout of the site will come from the extension of Ironwood Boulevard to the south from the Autumn Woods development. The road will travel north-south near the easterly portion of the site to connect into Autumn Woods Drive on the north side to provide an additional access

into the development (this connection will require purchasing City-owned land to access Autumn Woods Drive). This street extension will provide access to the 'Venture Series' lots (20 lots) on its east side. A loop street (Sugar Maple Drive) will extend off the west side of the Ironwood Boulevard extension and provide access to the Landmark Series lots (66 lots). In addition, a right-out access will be provided on the east side of the site to connect into Audubon Road (CR 15).

A public park space totaling 3.13 acres is denoted in the northwest portion of the site. A park access is shown between Blocks 3 & 4. This park space will connect into the City-owned property that abut the north and northwest portions of the site.

Transportation/Traffic/ROW/Construction Traffic

The plan proposes to provide for a network of internal residential roadways with connectivity to arterial roadways. Specifically, Ironwood Boulevard is extended to the north to provide access to the development area. This street will connect into Autumn Woods Drive. A right-out access on the east side of the development will provide access out on to County Road 15 (Audubon Road). County Road access will also come from Autumn Woods Drive to the north and Ironwood Boulevard/Butternut Drive to the south. A loop street (Sugar Maple Drive) will extend off the west side of Ironwood Boulevard to access the internal lots.

A traffic impact analysis (TIA) was completed for the preliminary submittal. The traffic study evaluated the impacts of the development on the internal streets as well as looked at all major intersections of Autumn Woods. In brief summary, it concluded that all intersections will operate at a serviceable level with the build-out of the development. It also concluded that the scenario showing access onto Autumn Woods Drive and Ironwood Boulevard extending to the south would be the best traffic scenario for the development and surrounding neighborhoods. The Autumn Woods Drive and Audubon Road intersection will be improved to include a dedicated left and right turn lane on Autumn Woods Drive.

The current plan appears to show road right-of-way widths that are consistent with the City's typical 60 foot wide ROWs as they are matching up with the stub street of Ironwood Boulevard. One area of exception is the width of Ironwood Boulevard near the south side of the development site. This area will taper in a couple feet (4 feet) to help promote traffic calming measures. The incorporation of this is to promote people to slow down as they are coming south and north along Ironwood Boulevard.

Construction traffic is proposed to be accessed off of Autumn Woods Drive to the north of the development. The existing Wagner driveway access on Audubon Road (CR 15) was looked at for a temporary construction access, however, Carver County deemed this access to be unsafe. They suggested that the Autumn Woods Drive access be used instead. The developer will need to continue working with Carver County on this construction access.

Traffic Calming Methods (Inside and Outside of Reserve at Autumn Woods)

Traffic is a major concern with this proposed development and with the existing Autumn Woods neighborhoods. Because of this it seemed imperative to review traffic calming measures inside and outside of the proposed development to see where (if any) improvements can occur. Staff, the developer and residents reviewed the preliminary plans prior to submittal in regards to how to provide better traffic calming measures in the development and outside the development on

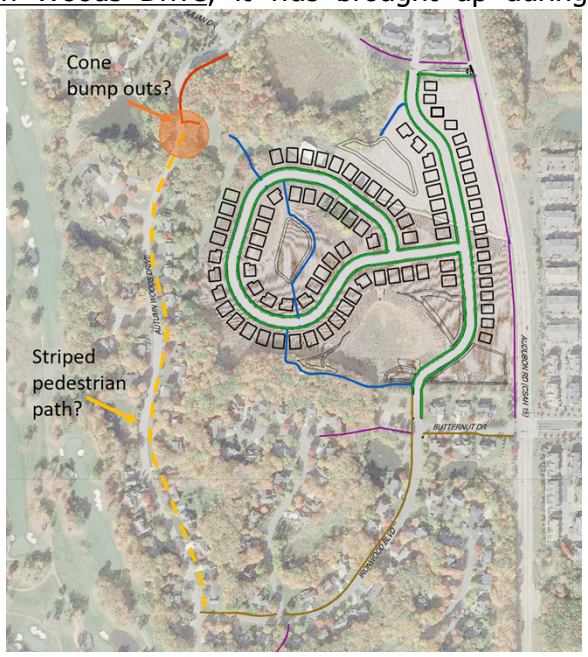
Ironwood Boulevard, Autumn Woods Drive, and Butternut Drive. The traffic calming measures are summarized below indicating what will be installed with this development, and other methods that can continue to be explored moving forward:

Traffic Calming Methods to be Installed with Development:

- Ironwood Blvd Tapering; within the proposed Reserve at Autumn Woods development Ironwood Boulevard will be tapered down four (4) feet on the south side of the development. This will help promote reduced speeds as people are traveling north and south along this road.
- Stop Signs added to Ironwood and Butternut Drive; to better control traffic moving out of the development stop signs will be added on the north and south sides of Ironwood Boulevard as it intersects Butternut Drive.
- Dedicated Turn Lanes on Autumn Woods Drive; there are currently no dedicated turn lanes on Autumn Woods Drive at the Audubon Road intersection. Because of this, people are single-lane stacked when waiting to turn left or right; if there is a person turning left they are generally creating more wait for everyone behind them. Autumn Woods Drive will be widened at the intersection to include dedicated left and right turn lanes to improve traffic turning movements here.
- Butternut Drive Median Modification; there is currently a sizeable median at the intersection of Butternut Drive and Audubon Road. There are homes that are located on both sides of Butternut Drive. The median does not allow some of the homes to make full turning movements into their driveways. In addition, the median doesn't allow for dedicated turn lanes on to Audubon Road. An alternative to this intersection was explored that can implement a smaller median that doesn't block driveways, and have dedicated turn lanes. The City will coordinate the intersection improvements with the developer and adjacent neighbors this Spring to better refine options with the existing median and turn lane/signal improvements.

Traffic Calming Methods for Continued Exploration and Implementation:

- Pedestrian Striping and Cones on Autumn Woods Drive; it was brought up during Concept Plan review and the subsequent meetings with residents that Autumn Woods Drive is not a safe road. There are no sidewalks for pedestrians to use, and it appears that cut-through traffic occurs. The exhibit to the right shows a small stretch of pedestrian trail that is included at the proposed public park entrance on Autumn Woods Drive up to Julian Drive to the north (red); this is to be further discussed with the Jonathan Association of its installation. A couple other measures for further studying/evaluation were discussed to potentially mitigate safety concerns on this road. One method was to provide striping along the east side of Autumn Woods Drive from Ironwood Boulevard up



to the proposed public park entrance that would be dedicated to pedestrians walking along this road. Parking would be minimized to one side of the road on the west side. In addition, it was discussed to include cones mimicking bump outs to be added near the proposed park entrance. This bump-out method would essentially lessen the road width and make cars slow down, or be more cautious, as they approach this area. It should be noted, that both these methods are more temporary implementations initially. If these methods prove to be successful in the field, then more permanent installations of such methods could occur. The methods and scope of implementation have only been briefly considered as it would be important to include more residents in the discussion since these implementations would be primarily used near them, and come at a cost of the residents if installed. These methods can continued to be discussed during and after the development so that appropriate measures are taken.

Utilities
Sewer and water utilities are available.

Stormwater
Stormwater ponding is proposed as a part of this proposal; ponding areas have been delineated on the plan mainly situated around the large wetland on the south side of the site. Maintenance accesses are shown for all ponds, and some are doubling as pedestrian trails. Stormwater ponding will have to meet all Riley Purgatory BCWD and City standards.

Setbacks
Minimum setbacks proposed are front setbacks of 25 feet, rear setbacks of 25 feet, side setbacks of 7.5 feet, and corner setbacks are 20 feet. In addition to the above, the development must meet the following setbacks:

SETBACKS	
Direction	**Setback**
Wooded Steep Slopes	50 feet building setback and 30 feet no grade/no mow setback
Wetlands	30 feet
County Road 15	125 feet from centerline

The lots that abut the wooded steep slope edges on the north edge of the site are now shown to be out of the 30 foot no grade/no mow setback. The 30 foot setback does not allow fences to be built on or within it so it's better that these setbacks are not within property lines.

Architecture & Anti Monotony
Lennar will be the sole builder in this development. The Landmark Series noted above will be 50-60 foot wide homes, ranging in price from $500,000-600,000. The Discovery Series will be 40 foot wide home, ranging in price from $450,000-$500,000. Lennar homes include varying amounts of stone on front facades and siding materials consist of lap siding, shakes, or board and batten. Other architectural features available on selected facades include columns, gables,

shutters, accentuated window trim and fascia, and decorative roof brackets and cornices. They have provided a couple home examples they offer as an attachment in the packet.

City ordinance dictates that housing may not be similar within two houses to each side, directly across the street or diagonal from the house in question. This ordinance also requires that homes provide LP Smartside on the front elevations, at least 4 inch window trim on all windows, and provide varied color packages on homes within one home on each side and directly across the street. This ordinance has been very successful in other newer residential developments.

Trails & Sidewalks

There are a couple trails proposed as a part of this development. These trails will be Jonathan owned and maintained. These trails exist on the south side of the site adjacent to the wetland/ponding area, and in the center of the site adjacent to the infiltration basin area. A public trail already exists on the west side of County Road 15 (Audubon Road), which will be connected by the development's proposed sidewalks (one on the northeast side at Autumn Woods Drive; and one on the east side at the new right-out access). Another trail connection is shown on the NW side of the site at the proposed public park entrance on Autumn Woods Drive, which would connect north up to Julian Drive. This connection needs to be further discussed with Jonathan on its implementation.

The developer will be required to provide sidewalks on both sides of the streets per City policy. The plan is showing sidewalks on both sides of the street. In addition, a sidewalk extension on the south side of Autumn Woods Drive is being proposed that connects the development entrance out to the County Road trail. Another extension is shown that connects the easterly sidewalk on Ironwood Boulevard to connect into Butternut Drive, which will ultimately connect into the proposed pedestrian crossing across the Ironwood Boulevard and Butternut Drive intersection.

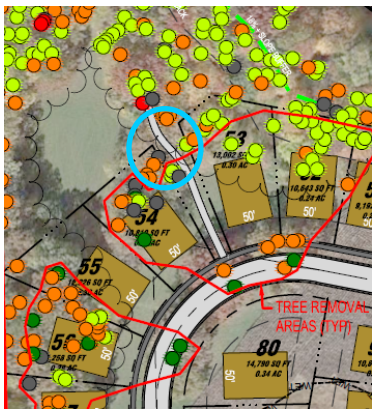
Screening, Landscaping & Tree Preservation

Because this development abuts a major roadway (Audubon Road; CR 15) it will be important that the homes that back up to this have adequate screening. The development north of Autumn Woods Drive (Lake Hazeltine Woods) provides berming and landscaping on its east edge along the County Road. Staff would require this same screening to be carried all the way through the east side of Reserve at Autumn Woods. The plan is showing a level of screening occurring and the applicant states that approximately 90 trees will be added to this area. The plan is also showing a section drawing of the proposed berm and landscaping to be added, which appears to be adequate and consistent with the townhome development to the north. Additional buffer trees will be added to the southeast edge of the development to provide screening to the three existing Autumn Woods homes on Butternut Drive.

Trees will be required in the boulevard in order to meet the City's Boulevard Tree Policy. It should be noted that the boulevard is the area between the sidewalk and the street.

A level of Tree Preservation is an important piece of this development. The applicant has conducted and submitted a tree survey as a part of this proposal showing the location and condition of the trees. Wooded areas exist on the southwest, northwest, and north portions of the site. 722 trees were inventoried on the site. The developer is showing certain areas for tree preservation (574 trees saved; 148 trees proposed to be removed), mainly along the south

edge, and northwest edges of the site in rear yards and in the public park area. The south and some northwest edge trees to be preserved are proposed to be in an outlot or tree preservation easement that will be deeded to/maintained by the Jonathan HOA. Tree preservation will also occur in the area slated for public park on the northwest side. There were trees noted in concept plan near the entrance of this park that would be beneficial in preserving (oak trees ranging from 29" to 41" in caliper that are in Excellent and Good conditions; trees 1208, 1215, 1220, and 1221; these trees are in the general area circled in blue below) and provide a natural grand entrance to the park for the development. The plan has been modified to provide a wider opening into the park, which now preserves those trees.



Parkland & Park Board Recommendations From Concept Plan

The Comprehensive Plan guides a portion of this area of land for a neighborhood park. The Comprehensive Plan shows the park space on the south side of the site as a connection to the Jonathan-owned park in Autumn Woods, however, after a site visit it appeared that the northwest portion of the site was the most viable/ideal location for a public park. This area would be able to contiguously connect into City-owned land that abuts the north and northwest sides of the site. It also provides an open pocket area nestled between trees, making it very idyllic. The south side of the site is encumbered by a wetland and abuts a Jonathan-owned park, which does not lend itself well for a public park. The park space proposed is showing a total of 3.13 acres (does not include wetland or wooded steep slope areas as these areas do not count as acceptable park space), which falls below the park dedication requirements for this size of site. It will be required of the developer to pay park dedication fees for the remainder of park dedication requirements; the Park Board will review and approve the amount of park acreage that will be accepted as public park dedication.

Previously the Park Board met on the Concept Plan (May 11, 2021) and recommended the following:

- The City receive a minimum of 2.65 acres of park dedication in land, with a strong recommendation for additional land, and receive the balance of park dedication in cash.
- Further recommendation is to omit Lennar's proposed park land dedication starting at northwest corner of lot 52 and everything east from there, and to omit lots 53, 54, and 55 to achieve the minimum 2.65 acres all contiguous on the northwest corner of the site.

It would appear that the developer has incorporated these comments into their plan. The Park Board also approved this park provision at their Tuesday, October 12th, 2021 meeting.

Jonathan Association & Update
As noted previously, the Jonathan Association plans to take over this development once its built out. They will be the owners and maintainers of the tree preservation areas, trails, ponds, and other common areas. The Association formally approved the acquisition of this development in October of 2021.

Final Plat
The final plat shows the platting of 86 single-family lots. The disposition of outlots are as follows:

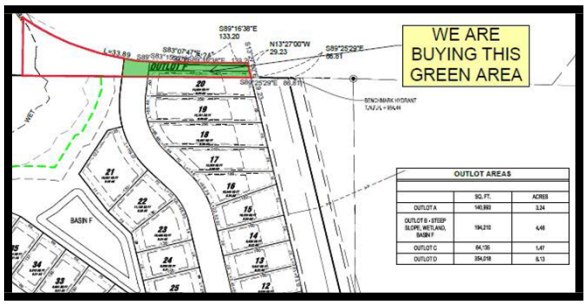
- **Outlot A**: public park space to be deeded to the City of Chaska
- **Outlot B**: wooded steep slope and wetland to be deeded to the City of Chaska
- **Outlot C**: trail and ponding area to be owned by the Jonathan HOA
- **Outlot D**: trail, wetland, and ponding area to be owned by the Jonathan HOA
- **Outlot E**: trail and ponding area to be owned by the Jonathan HOA
- **Outlot F**: ponding area to be owned by the Jonathan HOA
- **Outlot G**: ponding area to be owned by the Jonathan HOA
- **Outlot H**: monument sign to be owned by the Jonathan HOA

Development Costs (Infrastructure Improvements)
The City of Chaska has a number of area-wide development cost such as, but not limited to:
- Sewer and water area fees
- Storm Sewer
- Trails
- Parks

Prior to final platting, the developer will need to work with City Staff to determine which of these are applicable and what those fees will be.

City Land Purchase/Acquisition
The development did not have direct frontage on Autumn Woods Drive; there was a small sliver of City owned land that ran between the Wagner's property and Autumn Woods Drive (see in blue below). Because of this the developer was required to purchase a portion of the land needed for the street access (see exhibit on right below in green). The developer purchased this green area from the City at the same per acre charge that they bought the Wagner property for. This transaction between the City and Lennar was executed in January 2022. Lennar now owns this area.





Deadline for Agency Action
The City of Chaska received the complete application for this request on March 21, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Friday, May 20,**

2022 (60 days), unless the City provides the petitioner with written reasons for an additional 60-day review period. The additional review period would extend to Tuesday, July 19, 2022. The City may with the petitioner's consent extend the review period beyond the Tuesday, July 19, 2022 date. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

PLANNING COMMISSION ACTION TAKEN 04/13/2022:

Motion to recommend to City Council approval of the final plat for Reserve at Autumn Woods for a 86-lot subdivision on 45 acres of land, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Narrative (pgs 1-2), prepared by Josh Metzer of Lennar, undated
    b. Title Sheet General Information (pg 1), prepared by ISG, dated January 27, 2022
    c. Soils and Construction Notes (pg 2), prepared by ISG, dated January 27, 2022
    d. Utility Schedules (pgs 3-5), prepared by ISG, dated January 27, 2022
    e. Typical Street Sections and Details (pg 6), prepared by ISG, dated January 27, 2022
    f. Typical Details (pgs 7-11), prepared by ISG, dated January 27, 2022
    g. Storm Water Basin Details (pgs 13-14), prepared by ISG, dated January 27, 2022
    h. Retaining Wall Fence Plan and Details (pg 15), prepared by ISG, dated January 27, 2022
    i. Pedestrian Curb Details (pgs 16-21), prepared by ISG, dated January 27, 2022
    j. Final Plat (Overall) (pg 22), prepared by ISG, dated January 27, 2022
    k. SWPPP (pgs 23-31), prepared by ISG, dated January 27, 2022
    l. Existing Site & Removal Plan (pg 32), prepared by ISG, dated January 27, 2022
    m. Utility Plan (Overall) (pg 33), prepared by ISG, dated January 27, 2022
    n. Hydrant Coverage Map (pg 34), prepared by ISG, dated January 27, 2022
    o. Planned Street and Utility Construction (pgs 35-46), prepared by ISG, dated January 27, 2022
    p. Planned Storm Construction (pgs 47-53), prepared by ISG, dated January 27, 2022
    q. Storm Drain Details (pgs 54-56), prepared by ISG, dated January 27, 2022
    r. Grading Plans (pgs 57-61), prepared by ISG, dated January 27, 2022
    s. Detailed Grading (Intersections) (pgs 62-63), prepared by ISG, dated January 27, 2022
    t. Wetland Buffer and Signage (pg 64), prepared by ISG, dated January 27, 2022
    u. Landscape and Restoration Plans (pgs 65-68), prepared by ISG, dated January 27, 2022
    v. Tree Preservation Plans (pgs 69-76), prepared by ISG, dated January 27, 2022
    w. Final Plat (pgs 1-6), prepared by ISG, undated
    x. Traffic Impact Analysis – Draft, prepared by ISG, dated September 3, 2021
2. Adherence with the City Engineer's Memo dated April 13, 2022.
3. Adherence with the Carver County Public Works memo dated May 7, 2021.
4. Provision that all lot lines are outside 30 foot no grade/no mow setback of wooded steep slopes.
5. Preservation of the wooded steep slopes, including 30-foot buffer and a 50-foot setback from that wooded steep slope.
6. Provision that all lot lines are outside of wetland areas and their required buffers.
7. Adherence to the City's Boulevard Tree Policy and local street section design.
8. Provision that boulevard trees are placed between the sidewalk and street.
9. Provision of adequate berming and landscaping along east edge abutting County Road 15 consistent with the final landscape plan.
10. Provision of sidewalks on both sides of all local streets.
11. Adherence to the following building setbacks:
    a. Front (house): 25 feet
    b. Rear: 25 feet

c. Side (Landmark Series and Discovery Series): 7.5 feet
d. Side (corner): 20 feet

12. Adherence to the 125 foot centerline building setback from County Road 15.
13. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
14. Compliance with the City's anti-monotony and design requirements zoning ordinance (Section 15.28.290).
15. Provision of LP Smartside used on all front elevations, and 4 inch window trim on all windows.
16. Provision of developer responsibility to remove any hazardous trees or limbs on site as determined by the Public Works Director, prior to issuance of a building permit.
17. Provision of a storm water management plan meeting City and Riley Purgatory BCWD standards.
18. Provision that adequate maintenance accesses are provided for the stormwater ponds.
19. Direct right-out access onto County Road 15 (Audubon Road) shall be shown on the plans and receive approval by Carver County prior to recording of the final plat.
20. Right-out access to accommodate life safety for emergency service and to be coordinated with Engineering and City fire department.
21. Provision that the remaining park dedication requirements be provided in cash.
22. Provision that the monument sign adhere to zoning Section 15.32 sign regulations, and a sign permit obtained prior to installation.

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-40 approving the Final Plat for Reserve at Autumn Woods (PC #2022-12).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-40

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Final Plat for Reserve at Autumn Woods/Lennar/PC #2022-12

WHEREAS, the 86-lot detached single-family proposal on approximately 45-acres of property is located west of County Road 15 (Audubon Road) and south of Autumn Woods Drive; and

WHEREAS, a public park totaling 3.13 acres is proposed on the northwest corner of the site; and

WHEREAS, three lot sizes/products are proposed within this development (dubbed as Lennar's 'Landmark Series' and 'Discovery Series'); the Landmark Series (66 lots) will be 65 and 75 foot wide lots; and

WHEREAS, the Discovery Series (20 lots) will be 55 foot wide lots; and

WHEREAS, the layout of the site will come from the extension of Ironwood Boulevard to the south from the Autumn Woods development; and

WHEREAS, the road will travel north-south near the easterly portion of the site to connect into Autumn Woods Drive on the north side to provide an additional access into the development (this connection will require purchasing City-owned land to access Autumn Woods Drive); and

WHEREAS, a right-out access will be provided to Audubon Road (CR 15) to the east between Autumn Woods Drive and Butternut Drive; and

WHEREAS, a loop street (Sugar Maple Drive) will extend off the west side of Ironwood Boulevard; and

WHEREAS, a traffic impact analysis (TIA) was completed for the preliminary submittal; and

WHEREAS, the traffic study evaluated the impacts of the development on the internal streets as well as looked at all major intersections of Autumn Woods; and

WHEREAS, it concluded that all intersections will operate at a serviceable level with the build-out of the development; and

WHEREAS, it also concluded that the scenario showing access onto Autumn Woods Drive and Ironwood Boulevard extending to the south would be the best traffic scenario for the development and surrounding neighborhoods; and

WHEREAS, the Autumn Woods Drive and Audubon Road intersection will be improved to include a dedicated left and right turn lane on Autumn Woods Drive; and

WHEREAS, the current plan appears to show road right-of-way widths that are consistent with the City's typical 60 foot wide ROWs as they are matching up with the stub street of Ironwood Boulevard; and

WHEREAS, one area of exception is the width of Ironwood Boulevard near the south side of the development site, and this area will taper in a couple feet (4 feet) to help promote traffic calming measures; and

WHEREAS, the incorporation of this is to promote people to slow down as they are coming south and north along Ironwood Boulevard; and

WHEREAS, construction traffic is proposed to be accessed off of Autumn Woods Drive to the north of the development; and

WHEREAS, the lots that abut the wooded steep slope edges on the north edge of the site are now shown to be out of the 30 foot no grade/no mow setback; and

WHEREAS, the 30 foot wooded steep slope no grade/no mow setback does not allow fences to be built on or within it so it's better that these setbacks are not within property lines; and

WHEREAS, a public trail already exists on the west side of County Road 15 (Audubon Road), which will be connected by the development's proposed sidewalks (one on the northeast side on the south side of Autumn Woods Drive; and one on the east side at the new right-out access); and

WHEREAS, another trail connection is shown on the northwest side of the site at the proposed public park entrance on Autumn Woods Drive, which would connect north up to Julian Drive; and

WHEREAS, this connection needs to be further discussed with Jonathan on its implementation; and

WHEREAS, another sidewalk extension is shown that connects the easterly sidewalk on Ironwood Boulevard to connect into Butternut Drive, which will ultimately connect into the proposed pedestrian crossing across the Ironwood Boulevard and Butternut Drive intersection; and

WHEREAS, the plan is showing a level of screening occurring and the applicant states that approximately 90 trees will be added to the east side of the development as it abuts Audubon Road (CR 15); and

WHEREAS, additional buffer trees will be added to the southeast edge of the development to provide screening to the three existing Autumn Woods homes on Butternut Drive; and

WHEREAS, 722 trees were inventoried on the site, and the developer has already started to show certain areas for tree preservation (574 trees saved; 148 trees proposed to be removed), mainly along the south edge, and northwest edges of the site in rear yards and in the public park area; and

WHEREAS, there were trees noted in concept plan near the entrance of this park that would be beneficial in preserving (oak trees ranging from 29" to 41" in caliper that are in Excellent and Good conditions (trees 1208, 1215, 1220, and 1221), and provide a natural grand entrance to the park for the development; and

WHEREAS, the plan has been modified to provide a wider opening into the park, which now preserves those trees; and

WHEREAS, the Jonathan Association plans to take over this development once it's built out; and

WHEREAS, they will be the owners and maintainers of the tree preservation areas, trails, ponds, and other common areas; and

WHEREAS, the city will maintain the ponds consistent with the existing Autumn Woods developments; and

WHEREAS, the Jonathan Association formally approved the acquisition of this development in October of 2021; and

WHEREAS, the final plat shows the platting of 86 single-family lots, and the disposition of outlots are as follows:

- **Outlot A**: public park space to be deeded to the City of Chaska
- **Outlot B**: wooded steep slope and wetland to be deeded to the City of Chaska
- **Outlot C**: trail and ponding area to be owned by the Jonathan HOA
- **Outlot D**: trail, wetland, and ponding area to be owned by the Jonathan HOA
- **Outlot E**: trail and ponding area to be owned by the Jonathan HOA
- **Outlot F**: ponding area to be owned by the Jonathan HOA
- **Outlot G**: ponding area to be owned by the Jonathan HOA
- **Outlot H**: monument sign to be owned by the Jonathan HOA

WHEREAS, on April 13, 2022 the Planning Commission recommended approval to the City Council of the Final Plat for Reserve at Autumn Woods (PC#2022-12); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Final Plat for Reserve at Autumn Woods (PC#2022-12), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Narrative (pgs 1-2), prepared by Josh Metzer of Lennar, undated
    b. Title Sheet General Information (pg 1), prepared by ISG, dated January 27, 2022
    c. Soils and Construction Notes (pg 2), prepared by ISG, dated January 27, 2022
    d. Utility Schedules (pgs 3-5), prepared by ISG, dated January 27, 2022
    e. Typical Street Sections and Details (pg 6), prepared by ISG, dated January 27, 2022
    f. Typical Details (pgs 7-11), prepared by ISG, dated January 27, 2022
    g. Storm Water Basin Details (pgs 13-14), prepared by ISG, dated January 27, 2022
    h. Retaining Wall Fence Plan and Details (pg 15), prepared by ISG, dated January 27, 2022
    i. Pedestrian Curb Details (pgs 16-21), prepared by ISG, dated January 27, 2022
    j. Final Plat (Overall) (pg 22), prepared by ISG, dated January 27, 2022
    k. SWPPP (pgs 23-31), prepared by ISG, dated January 27, 2022
    l. Existing Site & Removal Plan (pg 32), prepared by ISG, dated January 27, 2022
    m. Utility Plan (Overall) (pg 33), prepared by ISG, dated January 27, 2022
    n. Hydrant Coverage Map (pg 34), prepared by ISG, dated January 27, 2022
    o. Planned Street and Utility Construction (pgs 35-46), prepared by ISG, dated January 27, 2022
    p. Planned Storm Construction (pgs 47-53), prepared by ISG, dated January 27, 2022
    q. Storm Drain Details (pgs 54-56), prepared by ISG, dated January 27, 2022
    r. Grading Plans (pgs 57-61), prepared by ISG, dated January 27, 2022
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Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

City of Chaska
Memorandum

To: **Planning Commission**
From: **Matt Clark**
Date: **April 13, 2022**
Subject: **Reserve at Autumn Woods Final Plat**

The items discussed with the Council for the development are being accounted for with the development site plans. The City will be taking the lead with coordinating the intersection improvements associated with the Butternut intersection and reaching out to the neighbors this spring to better refine the options with the existing median and turn lane/signal improvements.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300

LENNAR®

Reserve at Autumn Woods Final Plat

U.S. Home Corp, dba Lennar, is pleased to submit this request for Final Plat of Reserve at Autumn Woods, a proposed single family community at Audubon Road and Autumn Woods Drive.

Description of Request

Lennar is seeking Final Plat for Reserve at Autumn Woods. The proposed plat covers the entire site including 86 proposed single family lots. The Final Plat is consistent with the approved Preliminary Plat.

Homeowners Association

On October 25th, 2021 U.S. Home Corporation and The Jonathan Association fully executed a Declaration of Development Standards, Covenants, Conditions, Restrictions, and Easements for Reserve at Autumn Woods.

Disposition of Outlots & Maintenance Responsibility

OUTLOT	FUNCTION	OWNERSHIP	ASSOCIATION MAINTENANCE RESPONSIBILITY	CITY MAINTENANCE RESPONSIBILITY
Outlot A	City Park	City	None	Park Facilities
Outlot B	Wetland, Steep Slope, Open Space	Association	Wetland, Steep Slope, Open Space	None
Outlot C	Infiltration Basin, Trail, Steep Slope, Open Space	Association	Trail, Steep Slope, Open Space	Infiltration Basin
Outlot D	Infiltration Basin, Trail, Open Space	Association	Trail, Open Space	Infiltration Basin
Outlot E	Tree Preservation, Wetland, Trail, Steep Slope, Open Space	Association	Tree Preservation, Wetland, Trail, Steep Slope, Open Space	None
Outlot F	Infiltration Basin, Retaining Wall	Association	Retaining Wall	Infiltration Basin
Outlot G	Infiltration Basin, Landscape Buffer, Retaining Wall	Association	Landscape Buffer, Retaining Wall	Infiltration Basin
Outlot H	Monument Sign, Landscaping, Landscape Buffer	Association	Monument Sign, Landscaping, Landscape Buffer	None

Tree Preservation Areas and Landscape Buffers on Private Property

The Reserve at Autumn Woods HOA Declaration requires the following:

If a property is subject to a tree preservation easement or landscape buffer the Owner must comply with all requirements and restrictions of said easement or buffer. In the event any Owner of a property belonging to the Association fails to comply with any tree preservation easement or maintain any landscape buffer the Association may enter upon said property to repair, maintain, and restore the tree preservation easement area or landscape buffer.

Schedule

Land development work (grading) will begin Spring 2022; utility and street construction will begin Summer 2022; construction on model homes estimated to begin late Summer/early Fall 2022. Ideally, we would have a model home ready for the Fall 2022 Parade of Homes. Lennar estimates full occupancy of the community will occur approximately 36 to 48 months from the date sales begin.

Regards,

Josh Metzer
Land Entitlement Manager
Lennar Minnesota

RESERVE AT AUTUMN WOODS

PLAT FILE NO.
C.R. DOC. NO.

KNOW ALL PERSONS BY THESE PRESENTS: That U.S. Home, LLC, a Delaware limited liability company, fee owner of the following described property situated in the County of Carver, State of Minnesota to wit::

That part of the following described tract of land lying west of County State Aid Highway No. 17, Carver County, Minnesota:

All that part of the Northwest Quarter of Section 27, Township 116 North, Range 23 West, Carver County, Minnesota, lying easterly of the following described line: Commencing at a point on the north line of said Section 27, 1053.28 feet east of the northwest corner of said Section; thence south parallel with the west line of said Section to the south line of said Northwest Quarter and there terminating; excepting therefrom the south 1287.50 feet of said tract.

AND

That part of Outlot I, AUTUMN WOODS, according to the recorded plat thereof, Carver County, Minnesota, lying easterly of the following described line: Commencing at the southwest corner of said Outlot I; thence South 89 degrees 25 minutes 29 seconds East, assumed bearing along the south line of said Outlot I, 231.71 feet to the point of beginning of the line to be described; thence North 06 degrees 49 minutes 27 seconds East, 41.98 feet to the north line of said Outlot I and said line there terminating.

Has caused the same to be surveyed and platted as RESERVE AT AUTUMN WOODS and does hereby dedicate to the public for public use the public ways and the drainage and utility easements as created by this plat.

In witness whereof said U.S. Home, LLC, a Delaware limited liability company, has caused these presents to be signed by its proper officer this _____ day of _____, 20____.

Signed: U.S. Home, LLC

_____ its _____

State of _____

County of _____

This instrument was acknowledged before me on _____, 20____ by _____ its _____, of U.S. Home, LLC, a Delaware limited liability company, on behalf of the company.

_____
(signature)

_____
(print)

Notary Public _____ County, Minnesota

My Commission expires _____

SURVEYOR'S CERTIFICATE

I Mark A. Schwanz do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been or, will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this _____ day of _____, 20____.

_____
Mark A. Schwanz, Licensed Land Surveyor
Minnesota License No. 45817

State of Minnesota
County of _____

This instrument was acknowledged before me on _____, 20____ by Mark A. Schwanz.

_____
(signature)

_____
(print)

Notary Public, _____ County, Minnesota

My Commission expires _____

CITY COUNCIL, CITY OF CHASKA, MINNESOTA

This plat of **RESERVE AT AUTUMN WOODS**, was approved and accepted by the City Council of the City of Chaska, Minnesota at a regular meeting thereof held this _____ day of _____, 20____, and said plat is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2.

CITY COUNCIL, CITY OF CHASKA, MINNESOTA

By: _____ Mayor

By: _____ Clerk

COUNTY SURVEYOR, CARVER COUNTY, MINNESOTA

Pursuant to Chapter 395, Minnesota Laws of 1971, this plat has been approved this _____ day of _____, 20____.

Brian E. Praske, County Surveyor

By: _____

COUNTY AUDITOR, CARVER COUNTY, MINNESOTA

I hereby certify that taxes payable in _____ and prior years have been paid for land described on this plat. Dated this _____ day of _____, 20____.

Crystal Campos, County Auditor

By: _____

COUNTY RECORDER, CARVER COUNTY, MINNESOTA

I hereby certify that the within plat of RESERVE AT AUTUMN WOODS was filed this _____ day of _____, 20____, at ___ o'clock ___M. as Document No. _____.

Kaaren Lewis, County Recorder

By: _____

ISG

RESERVE AT AUTUMN WOODS

PLAT FILE NO.
C.R. DOC. NO.

AUTUMN WOODS DRIVE

AUTUMN WOODS

N LINE OF NE 1/4 OF NW 1/4
SEC. 27-T116N-R23W

N89°25'29"W 988.48

S6°49'27"W
41.98

L=63.90
R=596.24
Δ=6°08'27"

N89°16'38"W
193.28

N13°27'00"W
34.64

N89°25'29"W
86.81

N 1/4 CORNER
SEC. 27-T116N-R23W

OUTLOT H

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT F

OUTLOT G

AUDUBON ROAD (C.S.A.H. NO. 17)

IRONWOOD BLVD

SUGAR MAPLE DRIVE

S1°19'38"E 1401.87

N16°55'40"E 224.80

Δ=82°29'07"
L=287.93
R=200.00

S80°35'13"E
77.23

Δ=27°08'26"
L=142.11
R=300.00

S53°26'47"E
195.06

Δ=49°44'48"
L=145.21
R=182.00

N06°49'27"E
81.34

L=168.79
R=182.00
Δ=53°07'10"

N46°37'43"W
10.37

L=105.39
R=182.00
Δ=33°10'53"

N13°27'00"W
152.06

L=276.00
R=2750.00
Δ=5°45'02"

Δ=5°53'47"
R=2750.00

L=265.17
R=1432.50
Δ=10°36'21"

N13°30'56"W 517.21

S82°18'02"W 190.00

S82°18'02"W 439.31

S07°41'58"E
70.35

L=158.77
R=182.00
Δ=49°59'03"

S32°16'59"W 143.08

L=449.88
R=250.00
Δ=103°06'16"

N86°10'36"W
30.70

L=195.38
R=182.00
Δ=61°30'25"

L=333.98
R=2750.00
Δ=6°57'30"

L=340.98
R=2750.00
Δ=7°06'15"

N67°29'22"E
132.93

Δ=58°09'05"
L=184.51
R=182.00

N0°32'08"W 643.77

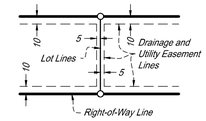
E LINE OF NE 1/4 OF NW 1/4
SEC. 27-T116N-R22W

S LINE OF NE 1/4 OF NW 1/4
SEC. 27-T116N-R23W

978.98

S89°12'05"E 1507.37
EXCEPTION

Drainage and Utility Easements are shown thus:



Being 5 feet in width and adjoining lot lines and being 10 feet in width and adjoining right - of - way lines and rear lot lines, unless otherwise indicated on the plat.

N

0 80 160

SCALE IN FEET

LEGEND

- ● Iron Monument Found
- ⊗ Indicates 1/2" Dia. x 18" Long Solid Iron Pipe Set With Plastic Cap Marked By ISG, License No. 45817 To Be Set Before Time of Recording.
- ○ Indicates 1/2" Dia. x 18" Long Solid Iron Pipe Set With Plastic Cap Marked By ISG, License No. 45817 To Be Set Within One Year of Recording.
- ▲ Set PK Nail

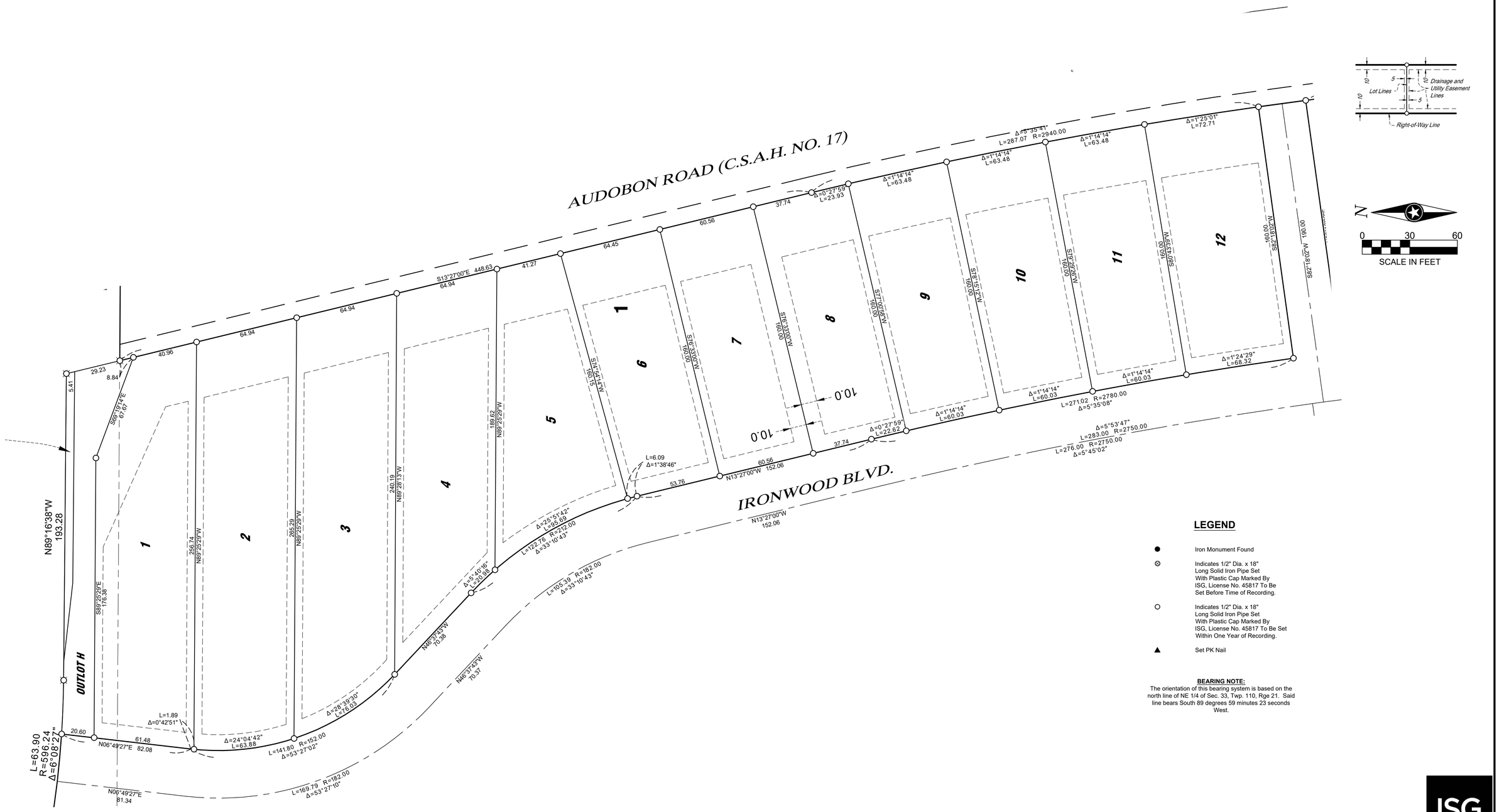
BEARING NOTE:
The orientation of this bearing system is based on the north line of NE 1/4 of Sec. 33, Twp. 110, Rge 21. Said line bears South 89 degrees 59 minutes 23 seconds West.

ISG

JOB # xx DATE: xx

RESERVE AT AUTUMN WOODS

PLAT FILE NO.
C.R. DOC. NO.



LEGEND

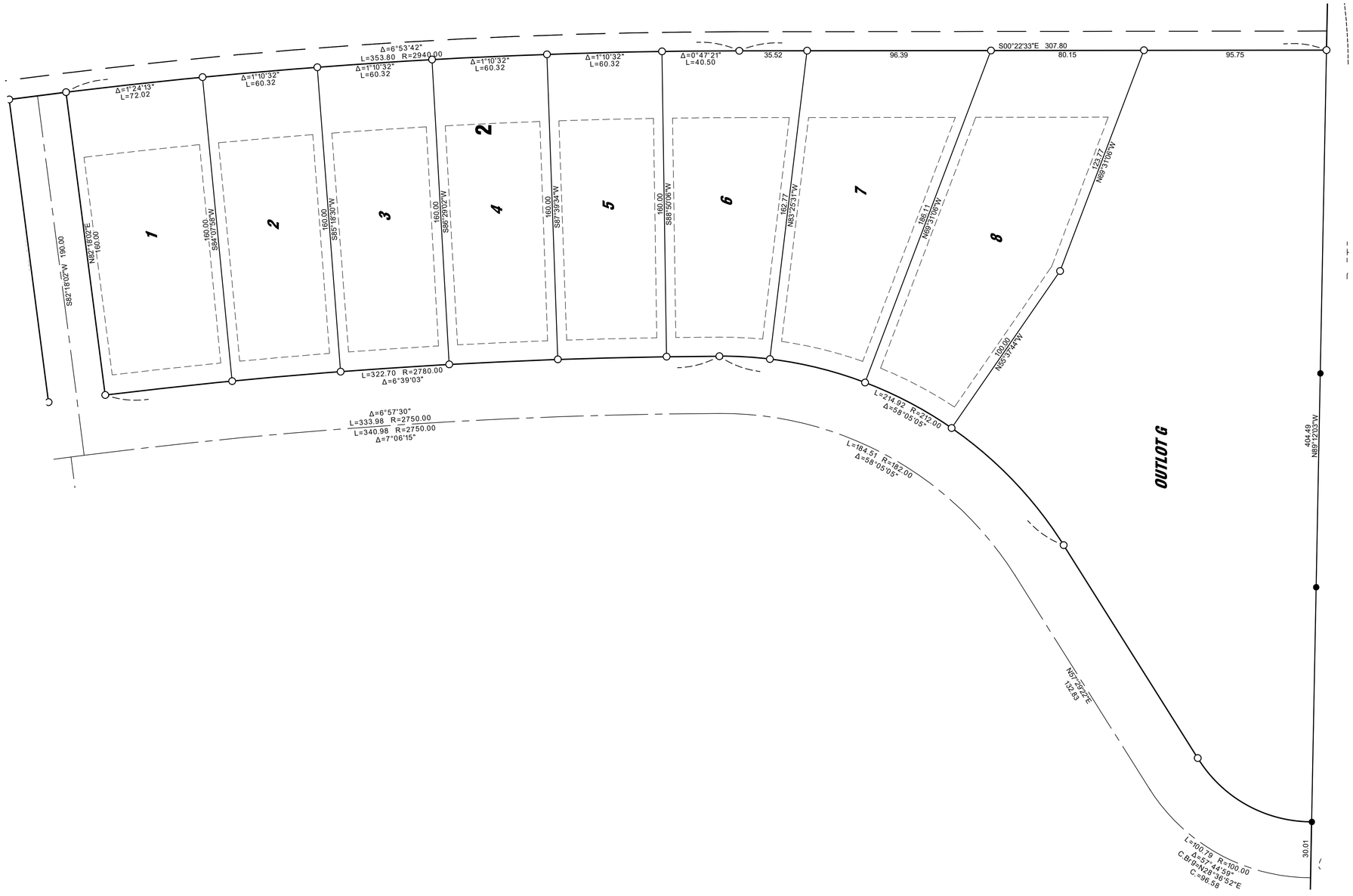
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ISG

RESERVE AT AUTUMN WOODS

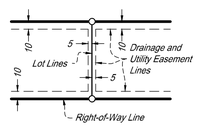
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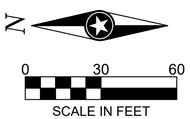


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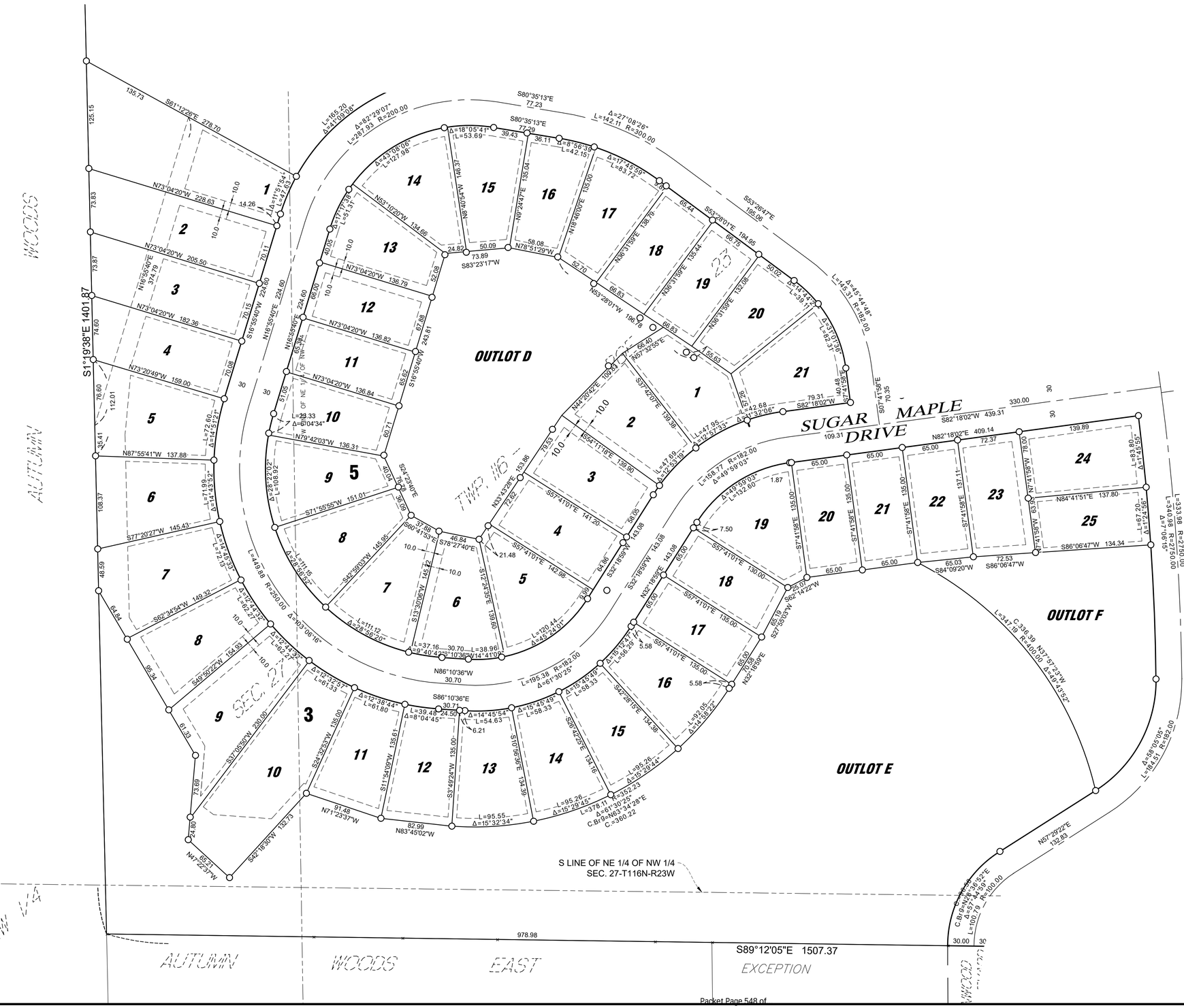


ISG

SHEET 4 OF 6 SHEETS

RESERVE AT AUTUMN WOODS

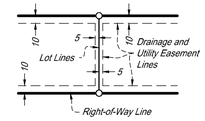
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- ○ Indicates 1/2" Dia. x 18" Long Solid Iron Pipe Set With Plastic Cap Marked By ISG, License No. 45817 To Be Set Within One Year of Recording.
- ▲ Set PK Nail

BEARING NOTE:
The orientation of this bearing system is based on the north line of NE 1/4 of Sec. 33, Twp. 110, Rge 21. Said line bears South 89 degrees 59 minutes 23 seconds West.



ISG

SHEET 5 OF 6 SHEETS

RESERVE AT AUTUMN WOODS

PLAT FILE NO.
C.R. DOC. NO.

AUTUMN WOODS

N LINE OF NE 1/4 OF NW 1/4
SEC. 27-T116N-R23W

N89°25'29"W 988.48
765.92
184.81
37.75

S6°49'27"W
41.98

L=63.
R=596
Δ=6°08

N06°49'27"E
81.34

S8°49'27"E 40.14

L=78.71
Δ=21°16'21"

N31°28'28"E 230.04

S75°33'06"W
34.94

L=169.19
Δ=53°27'10"
R=182.00

L=105.39
Δ=33°10'43"
R=182.00

N46°37'43"W
70.37

N46°37'43"W
70.37

122.10
S33°08'06"W

L=169.07
Δ=53°10'49"

S07°24'13"E
111.26

N43°22'17"E
135.00

L=22.52
Δ=8°29'17"

N51°51'34"E
104.81

L=69.50
Δ=24°41'26"

N46°37'43"W
72.91

N46°37'43"W
72.44

2.53

L=81.27

N76°33'00"E
135.00

N13°27'00"W
152.06

N76°33'00"E
135.00

N76°33'00"E
135.00

L=24.21
Δ=0°30'36"

N77°03'36"E
134.90

L=589.19
Δ=1°27'42"

N78°31'18"E
135.83

L=288.19
Δ=1°26'11"

N79°57'29"E
135.10

L=181.20
Δ=4°31'28"

L=2783.00 R=2750.00
L=278.00 R=2750.00
Δ=5°45'02"

N11°24'07"W
64.89

N11°24'07"W
64.89

S11°24'07"E
102.62

N11°24'07"W
65.94

5.29

N05°50'04"E
140.84

160.88
S59°49'49"W

L=16.32
Δ=4°24'35"

Δ=65°53'15"
L=58.19

Δ=16°53'17"
L=58.19

Δ=9°54'53"
L=35.45

N72°43'06"E
136.12

N77°58'14"W
48.40

N77°58'14"W
40.17

35.01
N11°24'07"W

S07°41'58"E
70.35

S82°18'02"W
134.83

S82°18'02"W
135.00

S82°18'02"W
30

330.00

S82°18'02"W 439.31

OUTLOT A

OUTLOT B

OUTLOT C

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

385.97

S61°12'26"E 276.70

N18°10'08"E
44.07

30.89
N29°20'11"W

N79°58'42"W 306.31

N78°04'57"E 208.06

110.86

S80°35'13"E 332.51
95.38

65.30

60.97

20.91

S67°26'39"E 122.30
65.86

65.73

15.52

65.73

S54°19'40"E 370.10
65.73

74.63

98.30

65.72

N53°29'01"W 194.95
65.72

47.49

S33°26'47"E
195.06

S00°06'18"E
169.24

147.28
S81°35'13"E

135.00
S9°24'47"W

135.43
S17°25'56"W

136.48
S28°35'15"W

136.70
S38°31'59"W

137.69
S38°31'59"W

138.67
S38°31'59"W

Δ=14°49'24"
L=59.51

Δ=14°38'41"
L=58.79

11.98

Δ=8°34'08"
L=49.55

Δ=10°34'19"
L=60.89

Δ=7°59'44"
L=45.96

L=118.29
R=230.00
Δ=29°28'05"

N80°35'13"W 77.29

S80°35'13"E
77.23

S80°35'13"E

L=165.20
Δ=47°09'58"

Δ=82°29'07"
L=287.93 R=200.00

Δ=27°08'26"
L=142.11
R=300.00

Δ=45°44'48"
L=145.31 R=182.00

L=283.00 R=2750.00

L=278.00 R=2750.00
Δ=5°45'02"

L=589.19
Δ=1°27'42"

L=288.19
Δ=1°26'11"

L=181.20
Δ=4°31'28"

L=69.50
Δ=24°41'26"

L=105.39
Δ=33°10'43"
R=182.00

L=169.19
Δ=53°27'10"
R=182.00

L=78.71
Δ=21°16'21"

L=59.51
Δ=14°49'24"

L=58.79
Δ=14°38'41"

L=49.55
Δ=8°34'08"

L=60.89
Δ=10°34'19"

L=45.96
Δ=7°59'44"

L=16.32
Δ=4°24'35"

L=58.19
Δ=65°53'15"

L=58.19
Δ=16°53'17"

L=35.45
Δ=9°54'53"

L=24.21
Δ=0°30'36"

L=22.52
Δ=8°29'17"

LEGEND

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BEARING NOTE:
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10 5 Lot Lines 10 5 Drainage and Utility Easement Lines

Right-of-Way Line

N

0 50 100
SCALE IN FEET

ISG

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA, MINNESOTA

CONSTRUCTION PLANS

ISG PROJECT # 21-24984

PRELIMINARY NOT FOR CONSTRUCTION

LEGEND

EXISTING

- CITY LIMITS
- SECTION LINE
- QUARTER SECTION LINE
- RIGHT OF WAY LINE
- PROPERTY / LOTLINE
- EASEMENT LINE
- ACCESS CONTROL
- WATER EDGE
- WETLAND BOUNDARY
- WETLAND / MARSH
- FENCE LINE
- CULVERT
- STORM SEWER
- SANITARY SEWER
- SANITARY SEWER FORCEMAIN
- WATER
- GAS
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND TV
- OVERHEAD UTILITY
- UNDERGROUND UTILITY
- UNDERGROUND FIBER OPTIC
- CONTOUR (MAJOR)
- CONTOUR (MINOR)
- DECIDUOUS TREE
- CONIFEROUS TREE
- TREE LINE
- MANHOLE/STRUCTURE
- CATCH BASIN
- HYDRANT
- VALVE
- CURB STOP
- POWER POLE
- UTILITY PEDESTAL / CABINET

PROPOSED

- LOT LINE
- RIGHT OF WAY
- EASEMENT
- CULVERT
- STORM SEWER
- STORM SEWER (PIPE WIDTH)
- SANITARY SEWER
- SANITARY SEWER (PIPE WIDTH)
- WATER
- GAS
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- UNDERGROUND TV
- CONTOUR
- MANHOLE (STORM, SANITARY)
- CATCH BASIN
- HYDRANT
- VALVE



LOCATION MAP

SCALE IN FEET

0 500 1000

ABBREVIATIONS:

AC	ACRE	CMP	CORRUGATED METAL PIPE	FDN	FOUNDATION	HR	HOUR	MB	MAIL BOX	PVC	POLYVINYL CHLORIDE	TEL	TELEPHONE
ADA	AMERICANS WITH DISABILITIES ACT	CO	CLEANOUT	FFE	FINISHED FLOOR ELEVATION	HWL	HIGH WATER LEVEL	MECH	MECHANICAL	PVMT	PAVEMENT	TEMP	TEMPORARY
ADD	ADDENDUM	CONC	CONCRETE	FPM	FEET PER MINUTE	HWY	HIGHWAY	MH	MANHOLE	QTY	QUANTITY	THRU	THROUGH
AFF	ABOVE FINISHED FLOOR	CONST	CONSTRUCTION	FPS	FEET PER SECOND	HYD	HYDRANT	MIN	MINIMUM	RAD	RADIUS	TNFH	TOP NUT OF FIRE HYDRANT
AGG	AGGREGATE	CONT	CONTINUOUS	FT	FOOT, FEET	I	INVERT	MISC	MISCELLANEOUS	RCP	REINFORCED CONCRETE PIPE	TRANS	TRANSFORMER
APPROX	APPROXIMATE	CY	CUBIC YARD	FTG	FOOTING	ID	INSIDE DIAMETER	NO	NUMBER	RD	ROOF DRAIN	TV	TELEVISION
ARCH	ARCHITECT, ARCHITECTURAL	C&G	CURB AND GUTTER	GA	GAUGE	IN	INCH	NTS	NOT TO SCALE	REBAR	REINFORCING BAR	T/W	TOP OF WALL
BFE	BASEMENT FLOOR ELEVATION	DEMO	DEMOLITION	GAL	GALLON	INV	INVERT	NWL	NORMAL WATER LEVEL	REM	REMOVE	TYP	TYPICAL
BIT	BITUMINOUS	DIA	DIAMETER	GALV	GALVANIZED	IP	IRON PIPE	OC	ON CENTER	ROW	RIGHT OF WAY	UT	UTILITY, UNDERGROUND
CAD	COMPUTER-AIDED DESIGN	DIM	DIMENSION	GC	GENERAL CONTRACTOR	IPS	IRON PIPE SIZE	OCEW	ON CENTER EACH WAY	R/W	RIGHT OF WAY		TELEPHONE
CB	CATCH BASIN	DS	DOWNSPOUT	GFE	GARAGE FLOOR ELEVATION	J-BOX	JUNCTION BOX	OH	OVERHEAD	SAN	SANITARY	VCP	VITRIFIED CLAY PIPE
CFS	CUBIC FEET PER SECOND	EA	EACH	GL	GUTTER LINE	JT	JOINT	OHD	OVERHEAD DOOR	SCH	SCHEDULE	W/O	WITHOUT
CF	CUBIC FOOT	ELEC	ELECTRICAL	GPM	GALLONS PER MINUTE	LF	LINEAR FEET	OZ	OUNCE	SF	SQUARE FOOT	W/	WITH
CI	CAST IRON	ELEV	ELEVATION	GV	GATE VALVE	LIN	LINEAR	PED	PEDESTAL, PEDESTRIAN	SPEC	SPECIFICATION	YD	YARD
CIP	CAST IRON PIPE	EOF	EMERGENCY OVERFLOW	HDPE	HIGH DENSITY POLYETHYLENE	LPS	LOW PRESSURE STEAM	PERF	PERFORATED	SQ	SQUARE	YR	YEAR
CIPC	CAST IN PLACE CONCRETE	EQ	EQUAL	HD	HEAVY DUTY	LS	LUMP SUM	PL	PROPERTY LINE	STA	STATION		
CJ	CONTROL JOINT	EX	EXISTING	HH	HANDHOLE	LSO	LOWEST STRUCTURAL OPENING	PP	POLYPROPYLENE	SY	SQUARE YARD		
CL	CENTERLINE	FDC	FIRE DEPARTMENT CONNECTION	HORIZ	HORIZONTAL	MAX	MAXIMUM	PSI	POUNDS PER SQUARE INCH	T/C	TOP OF CURB		

SHEET INDEX

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3-5	UTILITY SCHEDULES
6	TYPICAL STREET SECTIONS AND DETAILS
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15	RETAINING WALL FENCE PLAN AND DETAILS
16-21	PEDESTRIAN CURB DETAILS
22	FINAL PLAT (OVERALL)
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THIS PLAN SET CONTAINS 76 TOTAL SHEETS

PROJECT GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE OWNER - CONTRACTOR AGREEMENT, THE PROJECT MANUAL (WHICH INCLUDES GENERAL SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS), DRAWINGS OF ALL DISCIPLINES AND ALL ADDENDA, MODIFICATIONS AND CLARIFICATIONS ISSUED BY THE ARCHITECT/ENGINEER.
2. CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN COMPLETE SETS IN ORDER TO ACHIEVE THE FULL EXTENT AND COMPLETE COORDINATION OF ALL WORK.
3. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
5. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED THROUGHOUT THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO DETAILS SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
6. ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, CLEANED AND CONDITIONED ACCORDING TO MANUFACTURERS' INSTRUCTIONS. IN CASE OF DISCREPANCIES BETWEEN MANUFACTURERS' INSTRUCTIONS AND THE CONTRACT DOCUMENTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
7. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC CORROSION.
8. THE LOCATION AND TYPE OF ALL INPLACE UTILITIES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY AND ARE ACCURATE AND COMPLETE TO THE BEST OF THE KNOWLEDGE OF I & S GROUP, INC. (ISG). NO WARRANTY OR GUARANTEE IS IMPLIED. THE CONTRACTOR SHALL VERIFY THE SIZES, LOCATIONS AND ELEVATIONS OF ALL INPLACE UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
9. THE CONTRACTOR IS TO CONTACT "GOPHER STATE ONE CALL" FOR UTILITY LOCATIONS, MINIMUM 2 BUSINESS DAYS PRIOR TO ANY EXCAVATION / CONSTRUCTION (1-800-252-1166).

PROJECT INDEX:

OWNER:

LENNAR
16305 36TH AVENUE NORTH
PLYMOUTH, MN 55446

PROJECT ADDRESS / LOCATION:

SECTION 27 / TWP. 116 / RGE. 23

CARVER COUNTY MN

CHASKA, MINNESOTA

MANAGING OFFICE:

BLOOMINGTON OFFICE
7900 INTERNATIONAL DRIVE
SUITE 550
MINNEAPOLIS, MN 55425
PHONE: 952.426.0699

PROJECT MANAGER: JERREMY FOSS
EMAIL: JERREMY.FOSS@ISGINC.COM

SPECIFICATIONS REFERENCE

ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF CHASKA REQUIREMENTS AND MnDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2018 EDITION, AND THE STANDARD SPECIFICATIONS FOR SANITARY SEWER, STORM DRAIN AND WATERMAIN AS PROPOSED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA 2013, UNLESS DIRECTED OTHERWISE.

PROJECT DATUM

HORIZONTAL COORDINATES HAVE BEEN REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), 1996 ADJUSTMENT (NAD83(1996)) ON THE CARVER COUNTY COORDINATE SYSTEM, IN U.S. SURVEY FEET.
ELEVATIONS HAVE BEEN REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
RTK GPS METHODS WERE USED TO ESTABLISH HORIZONTAL AND VERTICAL COORDINATES FOR THIS PROJECT.

B.M. ELEVATION=954.44
TNFH SE INTERSECTION AUTUMN WOODS DR AND AUDUBON ROAD

B.M. ELEVATION=940.33
WEST SIDE AUDUBON ROAD, APPROX. 500' NORTH INTERSCTION WITH BUTTERNUT DRIVE

TOPOGRAPHIC SURVEY

THIS PROJECT'S TOPOGRAPHIC SURVEY CONSISTS OF DATA COLLECTED IN MARCH - APRIL 2021 BY ISG, INC.

NOTE:
THE CLARITY OF THESE PLANS DEPEND UPON COLOR COPIES. IF THIS TEXT DOES NOT APPEAR IN COLOR, THIS IS NOT AN ORIGINAL PLAN SET AND MAY RESULT IN MISINTERPRETATION.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JERREMY D. FOSS

DATE _____ LIC. NO. 55871

THIS DOCUMENT IS THE PROPERTY OF I & S GROUP, INC. AND MAY NOT BE USED, COPIED OR DUPLICATED WITHOUT PRIOR WRITTEN CONSENT.

PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TITLE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TITLE SHEET GENERAL INFORMATION

SHEET

1 OF 76

PLOT DATE: 10/14/2021 9:51 AM

SOIL AND CONSTRUCTION NOTES

1. TOP OF THE GRADING GRADE: THE TOP OF GRADING GRADE FOR THIS PROJECT IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE.

2. SUITABLE GRADING MATERIAL: ON THIS PROJECT SUITABLE GRADING MATERIAL SHALL INCLUDE ALL MINERAL SOILS IN ACCORDANCE WITH THE TRIAXIAL CHART IN THE MnDOT GRADING AND BASE MANUAL, EXCEPT SILT. UNSUITABLE MATERIALS SHALL INCLUDE DEBRIS, MARL, PEAT, WOOD, OR ANY OTHER ORGANIC SOILS. SELECT GRADING MATERIAL SHOULD BE RESERVED FOR EMBANKMENT PLACEMENT WITHIN THE ROADWAY CORE.

3. STRIP ALL INPLACE TOPSOIL AND SLOPE DRESSING IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. INPLACE TOPSOIL AND SLOPE DRESSING, ENCOUNTERED IN THE AREAS OF PROPOSED CONSTRUCTION.

4. PROVIDE A SAWCUT WHERE PLACING NEW PAVEMENT NEXT TO INPLACE PAVEMENT TO ENSURE A UNIFORM JOINT. THE CONTRACTOR SHALL SAWCUT THE EXISTING BITUMINOUS PAVEMENT AT ALL LOCATIONS WHERE THE NEW PAVEMENT MATCHES IN PLACE PAVEMENT, PROVIDING A CLEAN STRAIGHT EDGE. PRIOR TO PAVING THE WEAR COURSE, THE CONTRACTOR SHALL MILL THE EDGE OF ADJACENT PAVEMENTS TO PROVIDE FULL DEPTH OF THE WEAR COURSE TO THE EDGE. SAW CUTTING AND MILLING OF THE EDGES OF THE EXISTING PAVEMENTS AT THE CONSTRUCTION LIMITS SHALL BE INCIDENTAL TO PAVING. THE CONTRACTOR SHALL ALSO BE REQUIRED TO CLEAN THE UNDERLYING PAVEMENT SURFACE PRIOR TO PAVING THE WEAR COURSE. A WATER TRUCK AND PICK-UP STREET SWEEPER WILL BE REQUIRED FOR THIS WORK TO MINIMIZE DUST AND DIRT IMPACTS ON ADJACENT RESIDENCES.

5. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION AND EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE RECYCLED TO THE EXTENT ALLOWED IN BASE AND SURFACING ITEMS OR DISPOSED OF OFF THE PROJECT LIMITS IN ACCORDANCE WITH MnDOT SPECIFICATION SPEC. 2104.3C3.

6. OBTAIN COMPACTION ON THE GRADING PORTION OF PERMANENT CONSTRUCTION IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND IF IT ISNT SPECIFICALLY OUTLINED THEN FOLLOW THE "QUALITY COMPACTION METHOD" REQUIREMENTS.

7. OBTAIN COMPACTION ON THE MnDOT CLASS 5 PORTION OF THE PAVEMENT SECTION IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND CITY OF CHASKA.

8. TEST ROLLING SHALL BE REQUIRED ON ALL ROADWAYS WITH A LOADED TRI-AXLE DUMP TRUCK AT THE BOTTOM OF THE SUBGRADE AND THE TOP OF THE AGGREGATE BASE.

9. IN ANY PROPOSED CONSTRUCTION THE CONTRACTOR SHALL STRIVE TO SUBSTANTIALLY MATCH THE SOILS INPLACE IN THE TOP 4' OF THE ROADWAYS. GRANULAR BACKFILL SHALL NOT BE PERMITTED ADJACENT TO INPLACE NON-GRANULAR SOILS IN ORDER TO PREVENT AN ABRUPT SOILS DIFFERENTIAL.

10. THE BOTTOM OF ALL SUBCUTS SHALL BE SHAPED AND COMPACTED BY THE "QUALITY COMPACTION METHOD".

11. IN ANY CASE WHERE GRANULAR EMBANKMENTS OR BACKFILL JOIN NON-GRANULAR SOIL EMBANKMENTS OR BACKFILL, PROVIDE A 1(V):20(H) TRANSITION TAPER BETWEEN THE CHANGES IN MATERIAL TO PREVENT AN ABRUPT SOILS DIFFERENTIAL. THE 1(V):20(H) TAPER SHALL BE CONSTRUCTED SO THAT THE GRANULAR BACKFILL MATERIAL OVERLAYS THE ADJACENT NON-GRANULAR SOILS BACKFILL.

12. WHERE CONNECTING NEW SURFACING ADJACENT TO ANY INPLACE PAVEMENTS TO BE WIDENED, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICH EVER IS DEEPER, THEN AT A 2(V):1(H) SLOPE TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.

13. WHERE SUBCUTS RUN INTO DRIVEWAYS OR LOCAL ROADS, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER, THEN AT A 1(V):4(H) TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.

14. THE CONTRACTOR IS HEREBY REMINDED OF THEIR RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THIS AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.

15. SLOPE DRESSING ON THIS PROJECT IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.

16. ANY DEBRIS WHICH MAY BE ENCOUNTERED DURING GRADING SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE PROJECT RIGHT OF WAY IN A SUITABLE DISPOSAL AREA.

17. EXTREME CARE SHALL BE TAKEN SO THAT ALL EXISTING TREES LOCATED WITHIN & ADJACENT TO THE CONSTRUCTION AREAS ARE NOT REMOVED OR DAMAGED, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL CONTACT THE OWNER WITH ANY POTENTIAL CONFLICTS.

18. UNLESS OTHERWISE RECOMMENDED, PROVIDE FOR ALL SUBCUTS AND BACKFILL ACCORDINGLY THROUGHOUT THE ENTIRE PROJECT AS DEFINED ON THE GRADING PLANS.

19. PROVIDE 1(V):20(H) TAPERS WHEN CHANGING SUBCUT DEPTHS.

20. PIPE SEWERS CONNECTING MANHOLES AND CATCH BASINS SHALL BE IN ACCORDANCE WITH MNDOT SPEC. 2503 AND CITY OF CHASKAS REQUIREMENTS. BEDDING AND BACKFILL SHALL CONSIST OF UNIFORM SUITABLE GRADING MATERIAL MATCHING ADJACENT SOILS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

21. NO EXTRA PAYMENT WILL BE MADE FOR TEMPORARY STOCKPILING OF EXCAVATION, EMBANKMENT AND/OR BORROW MATERIAL.

22. CONSTRUCTION ACTIVITY SHALL BE PERFORMED IN SUCH A MANNER THAT ACCESS IS MAINTAINED TO ALL RESIDENCES. WHERE CONSTRUCTION OPERATIONS REQUIRE CLOSURE OF ACCESS TO SITE OR SURROUNDING PROPERTIES, CONTRACTOR SHALL COORDINATE WITH SAID PROPERTY OWNER AT LEAST 24 HOURS BEFORE THE ANTICIPATED ACCESS INTERRUPTION AND ALL ACCESS SHALL BE AT LEAST TEMPORARILY RESTORED EACH NIGHT BEFORE THE END OF THE WORK DAY. NO PROPERTY OWNER SHALL BE LEFT WITHOUT ADEQUATE ACCESS OVERNIGHT OR OVER THE WEEKEND. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AS WELL.

23. AS SHOWN ON THE PLANS, VARIOUS UTILITIES ARE LOCATED WITHIN THE PROJECT LIMITS. THERE ARE ADDITIONAL UTILITIES THAT MAY EXIST AND ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR ACTIVITIES WITH THE AFFECTED UTILITY COMPANIES AND/OR ADJACENT PROPERTY OWNERS AND WILL BE RESPONSIBLE FOR VERIFICATION AND PROTECTION OF ALL UTILITIES IN THEIR EXISTING LOCATION (POWER POLES, PEDESTALS, ETC.). THE CONTRACTOR SHALL COORDINATE WITH THE PRIVATE UTILITIES AND/OR ADJACENT PROPERTY OWNERS TO ARRANGE SUPPORTING/RELOCATE AND/OR REPAIRS TO ALL FACILITIES AS NEEDED FOR ALL UTILITY AND STREET IMPROVEMENTS. THE OWNER SHALL NOT INCUR ADDITIONAL COSTS IF THE LOCATIONS OF UTILITIES ARE NOT SHOWN ON THE PLANS FOR FOR DELAYS IN CONSTRUCTION CAUSED FROM CONFLICTS WITH PRIVATE UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH CARVER COUNTY, THE CITY OF CHASKAS, AND ALL UTILITY COMPANIES FOR ANY NECESSARY REMOVAL AND RELOCATION OF THEIR FACILITIES. THE CONTRACTOR SHALL PERFORM GRADING OPERATIONS AROUND ALL OVERHEAD ELECTRIC POWER POLES AND GUY WIRES. COORDINATE WITH LOCAL ELECTRIC COMPANY.

24. STORAGE AREAS ARE ONLY FOR NEW MATERIALS TO BE INCORPORATED INTO THE WORK OR MATERIALS SALVAGED FROM THE PROJECT THAT ARE TO BE REINSTALLED AS PART OF THE PROJECT. CONTRACTOR WILL NOT BE ALLOWED TO STORE PROJECT REMOVAL ITEMS (SUCH AS CONCRETE PAVEMENTS, SIDEWALKS, OLD MANHOLE STRUCTURES, ETC.) FOR LATER DISPOSAL. THOSE TYPES OF MATERIALS SHALL BE REMOVED FROM THE PROJECT AREA ON THE DAY THAT IT IS REMOVED FROM ITS EXISTING LOCATION,. THE CONTRACTOR SHALL ERECT A TEMPORARY BARRIER SYSTEM TO PREVENT THE GENERAL PUBLIC FROM ACCESSING THE STORAGE AREA. THE BARRIER SYSTEM SHALL BE APPROVED BY THE ENGINEER AND ERECTED PRIOR TO STORING MATERIALS. THE STORAGE AREAS SHALL BE RESTORED TO EXISTING OR BETTER QUALITY PRIOR TO PROJECT ACCEPTANCE. ALL COSTS INCURRED BY THE CONTRACTOR TO PROVIDE, MAINTAIN AND REMOVE THE TEMPORARY BARRIER SYSTEM AND RESTORE THE STORAGE AREA ARE INCIDENTAL TO THE PROJECT.

25. CONCRETE WASHOUT SHALL BE IN ACCORDANCE WITH MnDOT SPECIFICATION 1717 AND AS MAY BE MODIFIED IN THE SPECIAL PROVISIONS. ALL MATERIALS AND WORK NECESSARY TO CONSTRUCT AND MAINTAIN THE CONCRETE WASHOUT AREA SHALL BE INCIDENTAL TO CONCRETE PAY ITEMS.

26. ANY DISTURBED PROPERTY PINS SHALL BE REPLACED AND RESET AT NO COST TO THE OWNER.

27. ALL CURB RAMPS & SIDEWALKS SHALL CONFORM TO THE LATEST ADA REQUIREMENTS.

28. UTILITY TRENCHES SHALL BE COMPACTED BY THE METHODS LISTED IN THE GEOTECHNICAL REPORT. IF MEANS ARE NOT SPECIFIED THEN FOLLOW THE THE "QUALITY COMPACTION METHOD" PER MnDOT SPECIFICATIONS.

29. THE REMOVAL OF BITUMINOUS/CONCRETE PAVEMENT SHALL INCLUDE ALL NECESSARY SAWCUTS AS INCIDENTAL.

30. ALL FIELD TILES CROSSING THE EXISTING AND/OR NEW RIGHT OF WAY SHALL BE PROTECTED AT ALL TIMES. TILE LINES MARKED ON THIS PLAN AND ANY LOCATED DURING CONSTRUCTION OPERATIONS SHALL BE VERIFIED TO BE IN WORKING ORDER AT THE COMPLETION OF MASS EARTHWORK AND AGGREGATE PLACEMENT OPERATIONS. INSPECTION, DOCUMENTATION AND REPAIR/REPLACEMENT OF TILE LINES, IF NECESSARY DUE TO THE NEGLIGENCE OF THE CONTRACTOR, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

31. THE CONTRACTOR SHALL INSTALL TEMPORARY MAIL BOXES AND SUPPORTS AT LOCATIONS DESIGNATED BY THE POST MASTER DURING CONSTRUCTION OPERATIONS, INCIDENTAL.

32. IT IS SUSPECTED THAT UNKNOWN TILES ARE LOCATED WITHIN THE EXCAVATION AREA. SHOULD A TILE BE BROKEN DURING EXCAVATION ACTIVITES AND DETERMINED TO BE A LIVE TILE, THE CONTRACTOR SHALL FURNISH AND UTILIZE THE SAME OR SIMILAR MATERIAL AS THE BROKEN PIPE TO RECONNECT THE BROKEN TILE. WHERE THE NEW PIPING AND EXISTING PIPE ARE OF DIFFERENT SIZES AND/OR MATERIALS, THE CONTRACTOR SHALL FURNISH AND INSTALL ECCENTRIC FITTINGS OR "FERNCOS" TO PROVIDE A CONSTANT FLOW LINE ELEVATION AND WATERTIGHT CONNECTION.

ISG

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 NOTES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

SOILS AND CONSTRUCTION NOTES

SHEET

2

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/8/2021 7:22 AM

SANITARY SEWER STRUCTURE SCHEDULE

STRUCTURE NO.	ALIGNMENT	STATION	LOCATION	STRUCTURE TYPE	STRUCTURE SIZE (IN)	STRUCTURE MATERIAL	CASTING	PAY HEIGHT (LN FT)	TOP OF CASTING ELEVATION	INVERT ELEVATION	OUTLET PIPE
S-1	IRONWOOD BLVD	1+54	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	28.48	933.01	904.53	SP-1
S-2	IRONWOOD BLVD	2+15	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	14.24	934.84	920.60	SP-2
S-3	IRONWOOD BLVD	4+02	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.10	933.73	921.63	SP-3
S-4	IRONWOOD BLVD	5+11	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.53	935.60	923.07	SP-4
S-5	IRONWOOD BLVD	6+32	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	14.26	938.94	924.69	SP-5
S-6	IRONWOOD BLVD	8+98	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	18.11	945.01	926.90	SP-6
S-7	IRONWOOD BLVD	11+98	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	17.07	948.40	931.33	SP-7
S-8	IRONWOOD BLVD	13+92	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	19.51	952.01	932.50	SP-8
S-9	IRONWOOD BLVD	15+41	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	20.41	953.75	933.34	SP-9
S-10	IRONWOOD BLVD	16+21	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	16.65	950.50	933.84	SP-10
S-11	IRONWOOD BLVD	17+15	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	11.99	946.40	934.41	SP-11
S-12	SUGAR MAPLE DR	22+55	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	14.39	942.27	927.88	SP-12
S-13	SUGAR MAPLE DR	24+30	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	14.82	943.57	928.75	SP-13
S-14	SUGAR MAPLE DR	25+46	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	15.07	944.50	929.43	SP-14
S-15	SUGAR MAPLE DR	26+60	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	13.87	943.96	930.09	SP-15
S-16	SUGAR MAPLE DR	28+58	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICKHOLES	13.02	944.20	931.18	SP-16
S-17	SUGAR MAPLE DR	29+21	0' L	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICKHOLES	12.18	943.67	931.49	SP-17
S-18	SUGAR MAPLE DR	29+84	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICKHOLES	11.47	943.28	931.81	SP-18
S-19	SUGAR MAPLE DR	31+02	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	11.63	944.12	932.49	SP-19
S-20	SUGAR MAPLE DR	32+07	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.08	945.20	933.11	SP-20
S-21	SUGAR MAPLE DR	33+08	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.51	946.22	933.71	SP-21
S-22	SUGAR MAPLE DR	34+04	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.91	947.20	934.29	SP-22
S-23	SUGAR MAPLE DR	34+96	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	13.29	948.14	934.85	SP-23
S-24	SUGAR MAPLE DR	37+68	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	11.62	947.93	936.31	SP-24
S-25	SUGAR MAPLE DR	38+54	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.48	950.39	937.91	SP-25
S-26	SUGAR MAPLE DR	39+21	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	13.01	952.01	939.00	SP-26
S-27	SUGAR MAPLE DR	39+93	0' L	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	11.70	951.62	939.92	SP-27
S-28	SUGAR MAPLE DR	41+65	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.11	954.11	942.00	SP-28
S-29	SUGAR MAPLE DR	45+89	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	11.74	944.59	932.85	SP-29
S-30	SUGAR MAPLE DR	45+17	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	11.80	947.99	936.19	SP-30
S-31	SUGAR MAPLE DR	44+44	0' R	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.00	951.55	939.55	SP-31
S-32	SUGAR MAPLE DR	41+93	0'	MnDOT 4007C	48 Ø	RC	NEENAH R-1642 "SANITARY SEWER" 2 CONCEALED PICK HOLES	12.00	955.23	943.23	SP-32

SANITARY SEWER PIPE SCHEDULE

PIPE NO.	ALIGNMENT	STATION	LOCATION	DRAIN FROM	INLET ELEVATION	DRAIN TO	OUTLET ELEVATION	PIPE SIZE (IN)	MATERIAL	PIPE CLASS	PIPE GRADE	PIPE LENGTH (FT)
SP-1	IRONWOOD BLVD	1+54' to 1+09'	0' to 0'	S-1	904.53	EX SP-1	904.30	8	PVC	C900	0.50%	45
SP-2	IRONWOOD BLVD	2+15' to 1+54'	0' to 0'	S-2	920.60	S-1	920.30	8	PVC	SDR-35	0.50%	60
SP-3	IRONWOOD BLVD	4+02' to 2+15'	0' to 0'	S-3	921.63	S-2	920.70	8	PVC	SDR-35	0.50%	187
SP-4	IRONWOOD BLVD	5+11' to 4+02'	0' to 0'	S-4	923.07	S-3	921.73	8	PVC	SDR-35	1.25%	107
SP-5	IRONWOOD BLVD	6+32' to 5+11'	0' to 0'	S-5	924.69	S-4	923.17	8	PVC	SDR-35	1.25%	121
SP-6	IRONWOOD BLVD	8+98' to 6+32'	0' to 0'	S-6	927.00	S-5	924.79	8	PVC	SDR-26	0.83%	266
SP-7	IRONWOOD BLVD	11+98' to 8+98'	0' to 0'	S-7	931.44	S-6	927.10	8	PVC	SDR-26	1.44%	300
SP-8	IRONWOOD BLVD	13+92' to 11+98'	0' to 0'	S-8	932.50	S-7	931.54	8	PVC	SDR-26	0.50%	193
SP-9	IRONWOOD BLVD	15+41' to 13+92'	0' to 0'	S-9	933.34	S-8	932.60	8	PVC	SDR-26	0.50%	149
SP-10	IRONWOOD BLVD	16+21' to 15+41'	0' to 0'	S-10	933.84	S-9	933.45	8	PVC	SDR-26	0.50%	79
SP-11	IRONWOOD BLVD	17+15' to 16+21'	0' to 0'	S-11	934.41	S-10	933.94	8	PVC	SDR-35	0.50%	94
SP-12	SUGAR MAPLE DR	22+55' to 21+00'	0' to 0'	S-12	927.88	S-6	927.10	8	PVC	SDR-26	0.50%	155
SP-13	SUGAR MAPLE DR	24+30' to 22+55'	0' to 0'	S-13	928.75	S-12	927.88	8	PVC	SDR-35	0.50%	175
SP-14	SUGAR MAPLE DR	25+46' to 24+30'	0' to 0'	S-14	929.43	S-13	928.85	8	PVC	SDR-35	0.50%	116
SP-15	SUGAR MAPLE DR	26+60' to 25+46'	0' to 0'	S-15	930.09	S-14	929.53	8	PVC	SDR-35	0.50%	112
SP-16	SUGAR MAPLE DR	28+58' to 26+60'	0' to 0'	S-16	931.18	S-15	930.19	8	PVC	SDR-35	0.50%	198
SP-17	SUGAR MAPLE DR	29+21' to 28+58'	0' L to 0'	S-17	931.49	S-16	931.18	8	PVC	SDR-35	0.50%	62
SP-18	SUGAR MAPLE DR	29+84' to 29+21'	0' to 0' L	S-18	931.81	S-17	931.49	8	PVC	SDR-35	0.50%	63
SP-19	SUGAR MAPLE DR	31+02' to 29+84'	0' to 0'	S-19	932.49	S-18	931.91	8	PVC	SDR-35	0.50%	117
SP-20	SUGAR MAPLE DR	32+07' to 31+02'	0' to 0'	S-20	933.11	S-19	932.59	8	PVC	SDR-35	0.50%	105
SP-21	SUGAR MAPLE DR	33+08' to 32+07'	0' to 0'	S-21	933.71	S-20	933.21	8	PVC	SDR-35	0.50%	100
SP-22	SUGAR MAPLE DR	34+04' to 33+08'	0' to 0'	S-22	934.29	S-21	933.81	8	PVC	SDR-35	0.50%	96
SP-23	SUGAR MAPLE DR	34+96' to 34+04'	0' to 0'	S-23	934.85	S-22	934.39	8	PVC	SDR-35	0.50%	92
SP-24	SUGAR MAPLE DR	37+68' to 34+96'	0' to 0'	S-24	936.31	S-23	934.95	8	PVC	SDR-35	0.50%	271
SP-25	SUGAR MAPLE DR	38+54' to 37+68'	0' to 0'	S-25	937.91	S-24	936.41	8	PVC	SDR-35	1.76%	85
SP-26	SUGAR MAPLE DR	39+21' to 38+54'	0' to 0'	S-26	939.00	S-25	938.01	8	PVC	SDR-35	1.47%	68
SP-27	SUGAR MAPLE DR	39+93' to 39+21'	0' L to 0'	S-27	939.92	S-26	939.10	8	PVC	SDR-35	1.16%	71
SP-28	SUGAR MAPLE DR	41+65' to 39+93'	0' to 0' L	S-28	942.00	S-27	940.02	8	PVC	SDR-35	1.15%	172
SP-29	SUGAR MAPLE DR	45+89' to 46+60'	0' to 0'	S-29	932.85	S-13	930.08	8	PVC	SDR-35	3.93%	70
SP-30	SUGAR MAPLE DR	45+17' to 45+89'	0' to 0'	S-30	936.19	S-29	932.95	8	PVC	SDR-35	4.49%	72
SP-31	SUGAR MAPLE DR	44+44' to 45+17'	0' R to 0'	S-31	939.55	S-30	936.29	8	PVC	SDR-35	4.52%	72
SP-32	SUGAR MAPLE DR	41+93' to 44+44'	0' to 0' R	S-32	943.23	S-31	939.65	8	PVC	SDR-35	1.43%	251

WATERMAIN SCHEDULE

ALIGNMENT	STATION	LOCATION	PIPE TYPE	** PIPE LENGTH (FT)	PIPE SIZE (IN)
IRONWOOD BLVD	1+01 TO 1+03	10' TO 10'	C900	1	8
IRONWOOD BLVD	1+04 TO 1+53	10' TO 10'	C900	48	8
IRONWOOD BLVD	2+15 TO 1+53	10' TO 10'	C900	55	8
IRONWOOD BLVD	4+02 TO 2+16	11' TO 10'	C900	185	8
IRONWOOD BLVD	4+54 TO 4+02	11' TO 11'	C900	54	8
IRONWOOD BLVD	4+90 TO 4+54	10' TO 11'	C900	38	8
IRONWOOD BLVD	4+90 TO 4+90	19' TO 23'	C900	4	6
IRONWOOD BLVD	4+90 TO 4+90	10' TO 18'	C900	7	6
IRONWOOD BLVD	5+12 TO 4+91	12' TO 10'	C900	23	8
IRONWOOD BLVD	5+73 TO 5+12	13' TO 12'	C900	64	8
IRONWOOD BLVD	6+33 TO 5+74	11' TO 13'	C900	59	8
IRONWOOD BLVD	8+68 TO 6+33	11' TO 11'	C900	237	8
IRONWOOD BLVD	8+69 TO 9+06	11' TO 11'	C900	37	8
IRONWOOD BLVD	9+06 TO 9+06	19' TO 22'	C900	4	6
IRONWOOD BLVD	9+06 TO 9+06	11' TO 18'	C900	7	6
IRONWOOD BLVD	9+07 TO 9+08	11' TO 11'	C900	1	8
IRONWOOD BLVD	9+09 TO 11+74	11' TO 10'	C900	266	8
IRONWOOD BLVD	11+74 TO 13+31	10' TO 10'	C900	157	8
IRONWOOD BLVD	13+32 TO 13+32	18' TO 23'	C900	5	6
IRONWOOD BLVD	13+32 TO 13+32	11' TO 17'	C900	6	6
IRONWOOD BLVD	13+32 TO 13+62	10' TO 12'	C900	32	8

** PIPE LENGTHS EXCLUDE ALL TEES, VALVES, AND FITTINGS

WATERMAIN SCHEDULE

ALIGNMENT	STATION	LOCATION	PIPE TYPE	** PIPE LENGTH (FT)	PIPE SIZE (IN)
IRONWOOD BLVD	13+63 TO 13+94	12' TO 10'	C900	33	8
IRONWOOD BLVD	13+94 TO 15+10	10' TO 12'	C900	117	8
IRONWOOD BLVD	15+10 TO 15+10	13' TO 18'	C900	5	6
IRONWOOD BLVD	15+10 TO 15+11	19' TO 23'	C900	4	6
IRONWOOD BLVD	15+41 TO 15+10	11' TO 12'	C900	29	8
IRONWOOD BLVD	16+21 TO 15+41	11' TO 11'	C900	74	8
IRONWOOD BLVD	16+97 TO 16+21	12' TO 11'	C900	72	8
IRONWOOD BLVD	16+97 TO 17+27	12' TO 13'	C900	30	8
IRONWOOD BLVD	17+28 TO 17+52	14' TO 39'	C900	35	8
IRONWOOD BLVD	17+70 TO 17+53	192' TO 40'	C900	152	8
IRONWOOD BLVD	17+70 TO 17+71	192' TO 192'	C900	1	6
IRONWOOD BLVD	17+72 TO 17+74	192' TO 191'	C900	2	6
SUGAR MAPLE DR	21+30 TO 20+90	10' TO 10'	C900	40	8
SUGAR MAPLE DR	24+19 TO 21+31	10' TO 10'	C900	288	8
SUGAR MAPLE DR	24+59 TO 46+49	10' TO -10'	C900	39	8
SUGAR MAPLE DR	25+66 TO 24+60	12' TO 10'	C900	107	8
SUGAR MAPLE DR	26+08 TO 25+66	11' TO 12'	C900	45	8
SUGAR MAPLE DR	26+64 TO 26+08	14' TO 11'	C900	59	8
SUGAR MAPLE DR	26+86 TO 26+64	11' TO 14'	C900	23	8
SUGAR MAPLE DR	27+06 TO 26+86	10' TO 11'	C900	20	8
SUGAR MAPLE DR	28+28 TO 27+06	10' TO 10'	C900	123	8

** PIPE LENGTHS EXCLUDE ALL TEES, VALVES, AND FITTINGS

WATERMAIN SCHEDULE

ALIGNMENT	STATION	LOCATION	PIPE TYPE	** PIPE LENGTH (FT)	PIPE SIZE (IN)
SUGAR MAPLE DR	28+29 TO 28+29	19' TO 23'	C900	4	6
SUGAR MAPLE DR	28+29 TO 28+29	11' TO 18'	C900	7	6
SUGAR MAPLE DR	28+55 TO 28+29	10' TO 10'	C900	25	8
SUGAR MAPLE DR	29+05 TO 28+55	12' TO 10'	C900	47	8
SUGAR MAPLE DR	29+39 TO 29+05	12' TO 12'	C900	31	8
SUGAR MAPLE DR	29+84 TO 29+39	10' TO 12'	C900	42	8
SUGAR MAPLE DR	31+01 TO 29+84	10' TO 10'	C900	112	8
SUGAR MAPLE DR	32+07 TO 31+02	11' TO 10'	C900	100	8
SUGAR MAPLE DR	32+37 TO 32+07	14' TO 11'	C900	28	8
SUGAR MAPLE DR	32+37 TO 32+38	18' TO 22'	C900	5	6
SUGAR MAPLE DR	32+38 TO 32+37	15' TO 17'	C900	2	6
SUGAR MAPLE DR	32+72 TO 32+38	14' TO 14'	C900	32	8
SUGAR MAPLE DR	33+08 TO 32+73	11' TO 14'	C900	33	8
SUGAR MAPLE DR	34+04 TO 33+08	11' TO 11'	C900	91	8
SUGAR MAPLE DR	34+97 TO 34+04	10' TO 11'	C900	88	8
SUGAR MAPLE DR	36+33 TO 34+97	11' TO 10'	C900	135	8
SUGAR MAPLE DR	36+34 TO 36+34	20' TO 23'	C900	3	6
SUGAR MAPLE DR	36+34 TO 36+34	12' TO 19'	C900	7	6
SUGAR MAPLE DR	36+42 TO 36+34	11' TO 11'	C900	8	8
SUGAR MAPLE DR	37+67 TO 36+43	10' TO 11'	C900	123	8
SUGAR MAPLE DR	37+68 TO 38+54	10' TO 10'	C900	81	8

** PIPE LENGTHS EXCLUDE ALL TEES, VALVES, AND FITTINGS

WATERMAIN SCHEDULE

ALIGNMENT	STATION	LOCATION	PIPE TYPE	** PIPE LENGTH (FT)	PIPE SIZE (IN)
SUGAR MAPLE DR	38+54 TO 38+92	10' TO 13'	C900	36	8
SUGAR MAPLE DR	38+93 TO 39+12	12' TO -11'	C900	29	8
SUGAR MAPLE DR	39+13 TO 39+27	-11' TO -11'	C900	14	8
SUGAR MAPLE DR	39+27 TO 39+27	-18' TO -22'	C900	4	6
SUGAR MAPLE DR	39+27 TO 39+27	-12' TO -17'	C900	6	6
SUGAR MAPLE DR	39+59 TO 39+28	-12' TO -11'	C900	33	8
SUGAR MAPLE DR	40+06 TO 39+59	-11' TO -12'	C900	49	8
SUGAR MAPLE DR	41+42 TO 40+06	-12' TO -11'	C900	139	8
SUGAR MAPLE DR	41+93 TO 41+43	-13' TO -12'	C900	53	8
SUGAR MAPLE DR	42+65 TO 41+93	-10' TO -13'	C900	74	8
SUGAR MAPLE DR	42+65 TO 42+65	-18' TO -23'	C900	4	6
SUGAR MAPLE DR	42+65 TO 42+65	-11' TO -17'	C900	6	6
SUGAR MAPLE DR	44+44 TO 42+66	-12' TO -10'	C900	178	8
SUGAR MAPLE DR	45+15 TO 44+44	-12' TO -12'	C900	75	8
SUGAR MAPLE DR	45+87 TO 45+15	-11' TO -12'	C900	76	8
SUGAR MAPLE DR	46+15 TO 45+88	-11' TO -11'	C900	28	8
SUGAR MAPLE DR	46+16 TO 46+16	-18' TO -22'	C900	4	6
SUGAR MAPLE DR	46+16 TO 46+16	-11' TO -17'	C900	6	6
SUGAR MAPLE DR	46+30 TO 46+16	-11' TO -11'	C900	13	8
SUGAR MAPLE DR	46+49 TO 46+31	-11' TO -11'	C900	18	8
AUTUMN WOODS DR	61+43 TO 61+42	-31' TO -31'	C900	1	8

** PIPE LENGTHS EXCLUDE ALL TEES, VALVES, AND FITTINGS

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 SCHEDULES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

SANITARY & WATERMAIN SCHEDULES

SHEET

3

OF 76

PLOT DATE: 1/19/2022 3:40 PM

STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	ALIGNMENT	STATION	LOCATION	STRUCTURE TYPE	STRUCTURE SIZE (IN)	STRUCTURE MATERIAL	CASTING	PAY HEIGHT (LN FT)	* TOP OF CASTING ELEVATION	INVERT ELEVATION	OUTLET PIPE
ST-1	IRONWOOD BLVD	3+96	42' L	MnDOT TYPE F	48 Ø	RC	NEENAH R-1642 CASTING "STORM SEWER" 2 CONCEALED PICK HOLES	6.22	934.50	928.28	P-1
ST-2	IRONWOOD BLVD	3+72	11' L	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	4.83	933.50	928.67	P-2
ST-2A	IRONWOOD BLVD	3+72	15' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	4.50	933.50	929.00	P-2A
ST-3	SUGAR MAPLE DR	22+70	17' L	MnDOT 4020	72 Ø	RC	NEENAH R-3067-VB	11.22	941.96	930.74	P-3
ST-3A	SUGAR MAPLE DR	22+70	15' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	4.06	941.96	937.90	P-3A
ST-4	IRONWOOD BLVD	8+83	16' L	MnDOT TYPE F	48 Ø	RC	NEENAH R-1642 CASTING "STORM SEWER" 2 CONCEALED PICK HOLES	4.69	944.05	939.36	P-4
ST-5	IRONWOOD BLVD	9+37	16' L	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	4.18	945.53	941.35	P-5
ST-5A	IRONWOOD BLVD	9+37	15' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	3.62	945.47	941.85	P-5A
ST-6	IRONWOOD BLVD	8+60	15' L	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	4.17	943.81	939.64	P-6
ST-6A	IRONWOOD BLVD	8+63	15' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	3.90	943.86	939.96	P-6A
ST-7	SUGAR MAPLE DR	24+72	17' L	MnDOT 4020	60 Ø	RC	NEENAH R-3067-V	8.86	943.65	934.79	P-7
ST-7A	SUGAR MAPLE DR	24+68	16' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	5.44	943.61	938.17	P-7A
ST-7B	SUGAR MAPLE DR	46+22	16' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	4.61	943.10	938.49	P-7B
ST-7C	SUGAR MAPLE DR	46+22	16' L	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	4.17	943.17	939.00	P-7C
ST-8	SUGAR MAPLE DR	25+37	17' L	MnDOT 4020	60 Ø	RC	NEENAH R-3067-V	8.95	944.18	935.23	P-8
ST-9	SUGAR MAPLE DR	26+48	17' L	MnDOT 4020	60 Ø	RC	NEENAH R-3067-V	7.91	943.73	935.82	P-9
ST-10	SUGAR MAPLE DR	26+87	16' L	MnDOT 4020	72 Ø	RC	NEENAH R-3067-VB	7.42	943.56	936.14	P-10
ST-11	SUGAR MAPLE DR	26+87	17' R	MnDOT 4020	48 Ø	RC	NEENAH R-3067-VB	7.00	943.56	936.56	P-11
ST-12	IRONWOOD BLVD	12+18	17' L	MnDOT 4020	48 Ø	RC	NEENAH R-3067-VB	11.87	948.07	936.20	P-12
ST-12A	IRONWOOD BLVD	12+12	15' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	5.51	948.06	942.55	P-12A
ST-13	AUDUBON BACKARD	59+47	0' L	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.36	946.70	943.34	P-13
ST-13A	AUDUBON BACKARD	61+22	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.00	947.25	944.25	P-13A
ST-14	IRONWOOD BLVD	15+61	165' L	MnDOT TYPE F	48 Ø	RC	NEENAH R-1642 CASTING "STORM SEWER" 2 CONCEALED PICK HOLES	8.25	941.62	933.36	P-14
ST-15	IRONWOOD BLVD	16+04	65' L	MnDOT TYPE F	48 Ø	RC	NEENAH R-1642 CASTING "STORM SEWER" 2 CONCEALED PICK HOLES	8.35	947.09	938.74	P-15
ST-16	IRONWOOD BLVD	17+46	16' L	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	5.28	945.38	940.10	P-16
ST-16A	IRONWOOD BLVD	17+47	16' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	5.10	945.60	940.50	P-16A
ST-16B	IRONWOOD BLVD	17+47	151' R	MnDOT TYPE F	48 Ø	RC	FRAME GRATE COVER	6.23	949.55	943.32	P-16B
ST-16C	IRONWOOD BLVD	17+26	216' R	MnDOT TYPE H	27 Ø	RC	FRAME GRATE COVER	3.00	947.00	944.00	P-16C
ST-17	SUGAR MAPLE DR	37+02	17' R	MnDOT 4020	48 Ø	RC	NEENAH R-3067-VB	10.83	947.05	936.22	P-17
ST-18	SUGAR MAPLE DR	37+02	17' L	MnDOT 4020	60 Ø	RC	NEENAH R-3067-VB	6.40	947.05	940.65	P-18
ST-18B	SUGAR MAPLE DR	37+27	155' L	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353	3.00	945.95	942.95	P-18B
ST-19	SUGAR MAPLE DR	37+93	16' L	MnDOT 4020	48 Ø	RC	NEENAH R-3067-V	6.16	948.16	942.00	P-19
ST-19A	SUGAR MAPLE DR	37+93	53' L	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	4.75	947.75	943.00	P-19A
ST-19B	SUGAR MAPLE DR	37+87	143' L	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.00	947.00	944.00	P-19B
ST-20	SUGAR MAPLE DR	38+75	16' L	MnDOT 4020	48 Ø	RC	NEENAH R-3067-V	5.34	950.84	945.50	P-20
ST-21	SUGAR MAPLE DR	40+26	15' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	4.67	951.17	946.50	P-21
ST-21A	SUGAR MAPLE DR	40+26	15' L	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	4.17	951.17	947.00	P-21A
ST-22	AUDUBON BACKARD	51+22	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.00	933.90	930.90	P-22
ST-23	AUDUBON BACKARD	52+84	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.34	936.32	932.99	P-23
ST-24	AUDUBON BACKARD	53+44	0'	MnDOT TYPE G	48 Ø	RC	NEENAH R-4353 BEEHIVE	3.84	938.35	934.51	P-24
ST-25	AUDUBON BACKARD	54+03	0'	MnDOT TYPE G	48 Ø	RC	NEENAH R-4353 BEEHIVE	3.77	939.80	936.03	P-25
ST-26	AUDUBON BACKARD	55+23	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.50	942.35	938.85	P-26
ST-27	RIGHT OUT	51+55	13' L	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-V	4.49	944.38	939.89	P-27
ST-28	AUDUBON BACKARD	56+96	1' L	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.31	944.20	940.89	P-28
ST-29	AUDUBON BACKARD	57+59	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.42	945.48	942.06	P-29
ST-30	AUDUBON BACKARD	58+23	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.50	946.74	943.24	P-30
ST-31	SUGAR MAPLE DR	31+09	16' L	MnDOT 4020	72 Ø	RC	NEENAH R-3067-V	10.02	943.91	933.89	P-31
ST-31A	SUGAR MAPLE DR	29+95	17' L	MnDOT 4020	48 Ø	RC	NEENAH R-3067-VB	4.92	942.98	938.06	P-31A
ST-31B	SUGAR MAPLE DR	29+95	15' R	CATCH BASIN (TYPE 1)	36 x 24	RC	NEENAH R-3067-VB	4.57	942.98	938.41	P-31B
ST-32	SUGAR MAPLE DR	32+13	16' L	MnDOT 4020	48 Ø	RC	NEENAH R-3067-V	6.21	944.96	938.75	P-32
ST-33	SUGAR MAPLE DR	32+68	16' L	MnDOT 4020	60 Ø	RC	NEENAH R-3067-V	6.05	945.52	939.47	P-33
ST-34	WEST-SOUTH BACKYARDS	77+19	0'	MnDOT 4020	60 Ø	RC	NEENAH R-4353 BEEHIVE	3.23	944.50	941.27	P-34
ST-35	WEST-SOUTH BACKYARDS	78+49	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.00	945.18	942.18	P-35
ST-36	WEST-SOUTH BACKYARDS	80+29	0'	MnDOT TYPE G	48 Ø	RC	NEENAH R-4353 BEEHIVE	4.00	947.50	943.50	P-36
ST-37	WEST-SOUTH BACKYARDS	81+31	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.43	947.45	944.02	P-37
ST-38	WEST-SOUTH BACKYARDS	82+01	0'	MnDOT TYPE H	27 Ø	RC	NEENAH R-4353 BEEHIVE	3.00	947.50	944.50	P-38
ST-41A	BASIN F OUTLET	0+88	0'	MnDOT 4020	60 Ø	RC	SKIMMER GRATE (SEE CITY DETAIL)	7.50	940.50	933.00	P-41A
ST-47	WETLAND D OUTLET	51+87	0'	MnDOT 4020	60 Ø	RC	SKIMMER GRATE (SEE CITY DETAIL)	4.50	933.00	928.50	P-47

* TOP OF CASTING ELEVATIONS ON CURB STYLE CATCH BASINS = TOP BACK OF CURB BOX, NOT GUTTER ELEVATION

HYDRANT SCHEDULE

ALIGNMENT	STATION	LOCATION	TYPE	SIZE	BREAK ELEV
IRONWOOD BLVD	4+90	23	HYDRANT	5"x 8'-0"	BREAK ELEV=935.31
IRONWOOD BLVD	9+07	23	HYDRANT	5"x 8'-0"	BREAK ELEV=945.40
IRONWOOD BLVD	13+32	23	HYDRANT	5"x 8'-0"	BREAK ELEV=950.13
IRONWOOD BLVD	15+11	23	HYDRANT	5"x 8'-0"	BREAK ELEV=954.26
SUGAR MAPLE DR	28+29	23	HYDRANT	5"x 8'-0"	BREAK ELEV=944.52
SUGAR MAPLE DR	32+38	22	HYDRANT	5"x 8'-0"	BREAK ELEV=945.58
SUGAR MAPLE DR	36+34	23	HYDRANT	5"x 8'-0"	BREAK ELEV=948.02
SUGAR MAPLE DR	39+27	-22	HYDRANT	5"x 8'-0"	BREAK ELEV=952.12
SUGAR MAPLE DR	42+65	-23	HYDRANT	5"x 8'-0"	BREAK ELEV =957.18
SUGAR MAPLE DR	46+16	-22	HYDRANT	5"x 8'-0"	BREAK ELEV=943.59
AUTUMN WOODS DR	61+44	-26	HYDRANT	5"x 8'-0"	BREAK ELEV =954.78

VALVE SCHEDULE

ALIGNMENT	STATION	LOCATION	TYPE	SIZE
IRONWOOD BLVD	1+03	10	GV & BOX	8"
IRONWOOD BLVD	4+90	18	GV & BOX	6"
IRONWOOD BLVD	8+69	11	GV & BOX	8"
IRONWOOD BLVD	9+06	18	GV & BOX	6"
IRONWOOD BLVD	13+32	18	GV & BOX	6"
IRONWOOD BLVD	15+10	18	GV & BOX	6"
SUGAR MAPLE DR	21+30	10	GV & BOX	8"
SUGAR MAPLE DR	24+60	10	GV & BOX	8"
SUGAR MAPLE DR	28+29	18	GV & BOX	6"
SUGAR MAPLE DR	32+37	17	GV & BOX	6"
SUGAR MAPLE DR	36+34	19	GV & BOX	6"
SUGAR MAPLE DR	36+42	11	GV & BOX	8"
SUGAR MAPLE DR	39+27	-18	GV & BOX	6"
SUGAR MAPLE DR	42+65	-18	GV & BOX	6"
SUGAR MAPLE DR	46+16	-18	GV & BOX	6"
SUGAR MAPLE DR	46+30	-11	GV & BOX	8"
AUTUMN WOODS DR	61+42	-31	GV & BOX	8"
AUTUMN WOODS DR	61+44	-29	GV & BOX	6"

WATERMAIN FITTING SCHEDULE

ALIGNMENT	STATION	LOCATION	TYPE	SIZE	WEIGHT (LBS)
IRONWOOD BLVD	1+53	10	BEND	8"x22.5°	50
IRONWOOD BLVD	2+16	10	BEND	8"x22.5°	50
IRONWOOD BLVD	4+02	11	BEND	8"x11.25°	44
IRONWOOD BLVD	4+54	11	BEND	8"x11.25°	44
IRONWOOD BLVD	4+90	10	TEE	8"x6"	79
IRONWOOD BLVD	5+12	12	BEND	6"x11.25°	29
IRONWOOD BLVD	5+73	13	BEND	8"x11.25°	44
IRONWOOD BLVD	9+06	11	TEE	8"x6"	79
IRONWOOD BLVD	9+09	11	TEE	8"x8"	90
IRONWOOD BLVD	13+32	10	TEE	8"x6"	79
IRONWOOD BLVD	13+62	12	BEND	8"x11.25°	44
IRONWOOD BLVD	13+94	10	BEND	8"x11.25°	44
IRONWOOD BLVD	15+10	12	TEE	8"x6"	79
IRONWOOD BLVD	15+41	11	BEND	8"x11.25°	44
IRONWOOD BLVD	16+21	11	BEND	8"x22.5°	50
IRONWOOD BLVD	16+97	12	BEND	8"x11.25°	44
IRONWOOD BLVD	17+28	13	BEND	8"x45°	50
IRONWOOD BLVD	17+53	40	BEND	8"x45°	50
IRONWOOD BLVD	17+70	192	TEE	8"x6"	79
SUGAR MAPLE DR	24+19	10	TEE	8"x8"	90
SUGAR MAPLE DR	25+66	12	BEND	8"x11.25°	44
SUGAR MAPLE DR	26+08	11	BEND	8"x11.25°	44
SUGAR MAPLE DR	26+64	14	BEND	8"x22.5°	50
SUGAR MAPLE DR	28+29	10	TEE	8"x6"	79
SUGAR MAPLE DR	28+55	10	BEND	8"x11.25°	44
SUGAR MAPLE DR	29+05	12	BEND	8"x11.25°	44

WATERMAIN FITTING SCHEDULE

ALIGNMENT	STATION	LOCATION	TYPE	SIZE	WEIGHT (LBS)
SUGAR MAPLE DR	29+39	12	BEND	8"x11.25°	44
SUGAR MAPLE DR	29+84	10	BEND	8"x22.5°	50
SUGAR MAPLE DR	31+01	10	BEND	8"x11.25°	44
SUGAR MAPLE DR	32+07	11	BEND	8"x11.25°	44
SUGAR MAPLE DR	32+38	14	TEE	8"x6"	79
SUGAR MAPLE DR	32+73	14	BEND	8"x11.25°	44
SUGAR MAPLE DR	33+08	11	BEND	8"x11.25°	44
SUGAR MAPLE DR	34+04	11	BEND	8"x22.5°	50
SUGAR MAPLE DR	34+97	10	BEND	8"x22.5°	50
SUGAR MAPLE DR	36+34	11	TEE	8"x6"	79
SUGAR MAPLE DR	37+67	10	BEND	8"x22.5°	50
SUGAR MAPLE DR	38+54	10	BEND	8"x22.5°	50
SUGAR MAPLE DR	38+93	13	BEND	8"x45°	50
SUGAR MAPLE DR	39+12	-11	BEND	8"x45°	50
SUGAR MAPLE DR	39+27	-11	TEE	8"x6"	79
SUGAR MAPLE DR	39+59	-12	BEND	8"x11.25°	44
SUGAR MAPLE DR	40+06	-11	BEND	8"x11.25°	44
SUGAR MAPLE DR	41+43	-12	BEND	8"x11.25°	44
SUGAR MAPLE DR	41+93	-13	BEND	8"x11.25°	44
SUGAR MAPLE DR	42+65	-10	TEE	8"x6"	79
SUGAR MAPLE DR	44+44	-12	BEND	8"x11.25°	44
SUGAR MAPLE DR	45+15	-12	BEND	8"x22.5°	50
SUGAR MAPLE DR	45+87	-11	BEND	8"x11.25°	44
SUGAR MAPLE DR	46+16	-11	TEE	8"x6"	79

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 SCHEDULES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

STORM & WATERMAIN SCHEDULES

SHEET

4

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 11/8/2021 3:40 PM

STORM DRAIN PIPE SCHEDULE

PIPE NO.	DRAIN FROM	INLET ELEVATION	DRAIN TO	OUTLET ELEVATION	PIPE SIZE (IN)	MATERIAL	PIPE GRADE	PIPE LENGTH (FT)
P-1	ST-1	928.28	FES-1	928.12	18	RCP	0.51%	32
P-2	ST-2	928.67	ST-1	928.48	18	RCP	0.50%	37
P-2A	ST-2A	929.00	ST-2	928.87	15	RCP	0.50%	26
P-3	ST-3	930.74	FES-3	929.00	36	RCP	0.96%	182
P-3A	ST-3A	937.90	ST-3	937.00	12	RCP	2.85%	32
P-4	ST-4	939.36	ST-3	937.00	12	RCP	1.54%	153
P-5	ST-5	941.35	ST-4	939.54	12	RCP	3.40%	53
P-5A	ST-5A	941.85	ST-5	941.55	12	RCP	0.98%	31
P-6	ST-6	939.64	ST-4	939.54	12	RCP	0.42%	23
P-6A	ST-6A	939.96	ST-6	939.84	12	RCP	0.40%	30
P-7	ST-7	934.79	ST-3	933.74	36	RCP	0.52%	202
P-7A	ST-7A	938.17	ST-7	937.85	18	RCP	1.00%	32
P-7B	ST-7B	938.49	ST-7A	938.17	15	RCP	1.00%	32
P-7C	ST-7C	939.00	ST-7B	938.69	12	RCP	1.00%	31
P-8	ST-8	935.23	ST-7	934.99	36	RCP	0.36%	65
P-9	ST-9	935.82	ST-8	935.43	36	RCP	0.40%	99
P-10	ST-10	936.14	ST-9	936.02	36	RCP	0.33%	36
P-11	ST-11	936.56	ST-10	936.34	30	RCP	0.67%	33
P-11A	FES-11A	938.15	ST-11	936.76	30	RCP	0.75%	184
P-12	ST-12	940.20	FES-12	936.50	18	RCP	2.28%	163
P-12A	ST-12A	942.55	ST-12	942.20	18	RCP	1.09%	32
P-13	ST-13	943.34	ST-12A	942.75	18	RCP	0.40%	150
P-13A	ST-13A	944.25	ST-13	943.54	12	RCP	0.41%	173
P-14	ST-14	937.36	FES-14	937.00	15	RCP	0.96%	38
P-15	ST-15	938.74	ST-14	937.56	15	RCP	0.96%	122

STORM DRAIN PIPE SCHEDULE

PIPE NO.	DRAIN FROM	INLET ELEVATION	DRAIN TO	OUTLET ELEVATION	PIPE SIZE (IN)	MATERIAL	PIPE GRADE	PIPE LENGTH (FT)
P-16	ST-16	940.10	ST-15	938.94	15	RCP	0.69%	167
P-16A	ST-16A	940.50	ST-16	940.30	18	RCP	0.63%	32
P-16B	ST-16B	943.32	ST-16A	940.70	15	RCP	1.94%	135
P-16C	ST-16C	944.00	ST-16B	943.52	15	RCP	0.70%	68
P-17	ST-17	940.22	FES-17	937.25	24	RCP	1.62%	183
P-18	ST-18	940.65	ST-17	940.22	24	RCP	1.31%	33
P-18B	ST-18B	942.95	ST-18A	941.45	18	RCP	1.08%	138
P-19	ST-19	942.00	ST-18A	941.45	18	RCP	0.80%	69
P-19A	ST-19A	943.00	ST-19	942.20	18	RCP	2.19%	37
P-19B	ST-19B	944.00	ST-19A	943.20	15	RCP	0.89%	90
P-20	ST-20	945.50	ST-19	943.50	15	RCP	2.26%	88
P-21	ST-21	946.50	ST-20	945.70	15	RCP	0.53%	151
P-21A	ST-21A	947.00	ST-21	946.70	12	RCP	1.00%	30
P-22	ST-22	930.90	FES-22	930.50	24	RCP	0.41%	97
P-23	ST-23	933.00	ST-22	931.10	15	RCP	1.18%	161
P-24	ST-24	934.51	ST-23	933.20	12	RCP	2.20%	60
P-25	ST-25	936.03	ST-24	934.71	12	RCP	2.20%	60
P-26	ST-26	938.85	ST-25	936.23	12	RCP	2.20%	119
P-27	ST-27	939.89	ST-26	939.05	12	RCP	1.06%	79
P-28	ST-28	940.89	ST-27	939.89	12	RCP	1.06%	94
P-29	ST-29	942.06	ST-28	941.09	12	RCP	1.55%	63
P-30	ST-30	943.24	ST-29	942.26	12	RCP	1.55%	63
P-31	ST-31	937.89	FES-32	937.25	30	RCP	0.28%	230
P-31A	ST-31A	938.06	ST-31	937.89	24	RCP	0.14%	120
P-31B	ST-31B	938.41	ST-31A	938.26	18	RCP	0.47%	32

STORM DRAIN PIPE SCHEDULE

PIPE NO.	DRAIN FROM	INLET ELEVATION	DRAIN TO	OUTLET ELEVATION	PIPE SIZE (IN)	MATERIAL	PIPE GRADE	PIPE LENGTH (FT)
P-32	ST-32	938.75	ST-31	937.89	24	RCP	0.79%	109
P-33	ST-33	939.47	ST-32	938.95	24	RCP	0.88%	59
P-34	ST-34	941.27	ST-33	939.67	18	RCP	0.95%	168
P-35	ST-35	942.18	ST-34	941.47	18	RCP	0.55%	129
P-36	ST-36	943.50	ST-35	942.38	15	RCP	0.63%	178
P-37	ST-37	944.02	ST-36	943.70	15	RCP	0.31%	102
P-38	ST-38	944.50	ST-37	944.22	12	RCP	0.40%	71
P-39	FES-39	935.50	FES-39A	934.46	15	RCP	3.92%	27
P-41A	ST-41A	933.00	ST-41	929.00	18	RCP	7.52%	53
P-41B	FES-41B	936.81	ST-41A	936.66	8	PVC	1.00%	15
P-42	FES-42	930.50	FES-42A	929.75	18	RCP	0.69%	109
P-44	FES-44	930.50	FES-44C	930.50	15	RCP	0.00%	78
P-44A	FES-44A	930.50	FES-44B	930.50	15	RCP	0.00%	78
P-45A	FES-45A	931.18	FES-45AA	930.21	24	RCP	2.40%	40
P-45B	FES-45B	931.18	FES-45BB	930.21	24	RCP	2.39%	41
P-45C	FES-45C	931.18	FES-45CC	930.21	12	RCP	2.39%	41
P-46	FES-46	931.07	FES-46A	929.40	18	RCP	3.65%	46
P-47	ST-47	928.50	FES-47	928.40	24	RCP	0.30%	34
P-47A	FES-47A	928.20	ST-47	928.50	24	RCP	1.56%	19

ARCH PIPE SCHEDULE

PIPE NO.	ALIGNMENT	STATION	LOCATION	DRAIN FROM	INLET ELEVATION	DRAIN TO	OUTLET ELEVATION	PIPE SIZE WxH (IN)	MATERIAL	PIPE GRADE	PIPE LENGTH (FT)
P-43	Ironwood Blvd	2+61 to 2+57	47' R to 53' L	FES-43	931.09	FES-43A	930.00	22"x13"	RC	1.09%	100

STORM DRAIN APRON SCHEDULE

APRON NO.	AREA	APRON SIZE (IN)	APRON MATERIAL	INVERT ELEVATION	PIPE NO.	NOTES
FES-1	BASIN C	18	RC	928.12	P-1	6 CY CL. III RIRAP
FES-3	BASIN C	36	RCP	929.00	P-3	12 CY CL. III RIRAP
FES-11A	BASIN E OUTLET	30	HDPE	938.15	P-11A	
FES-12	BASIN F	18	RC	936.50	P-12	6 CY CL. III RIRAP
FES-14	BASIN F	15	RC	937.00	P-14	4 CY CL. III RIRAP
FES-17	BASIN E	24	RC	937.25	P-17	8 CY CL. III RIRAP
FES-22	BASIN B	24	RC	930.50	P-22	8 CY CL. III RIRAP
FES-32	BASIN E	30	HDPE	937.25	P-31	12 CY CL. III RIRAP
FES-39	WEST-SOUTH BACKYARDS	15	RC	935.50	P-39	
FES-39A	WEST-SOUTH BACKYARDS	15	RC	934.46	P-39	5 CY CL. III RIRAP
FES-41	BASIN F OUTLET	18	HDPE	925.25	P-41	30 CY CL III RIPRAP
FES-41B	BASIN F OUTLET	8	HDPE	936.81	P-41B	
FES-42	BASIN A-B CONNECTION	18	RC	930.50	P-42	
FES-42A	BASIN A-B CONNECTION	18	RC	929.75	P-42	6 CY CL. III RIRAP
FES-43	BASIN B OUTLET	22	RC ARCH	931.09	P-43	22x14 ARCH
FES-43A	BASIN B OUTLET	22	RC ARCH	930.00	P-43	22X14 ARCH 4 CY CL. III RIPRAP
FES-44	BASIN B-C CONNECTION	15	RC	930.50	P-44	
FES-44A	BASIN B-C CONNECTION	15	RC	930.50	P-44A	
FES-44B	BASIN B-C CONNECTION	15	RC	930.50	P-44A	
FES-44C	BASIN B-C CONNECTION	15	RC	930.50	P-44	
FES-45A	BASIN C OUTLET	24	RC	931.18	P-45A	
FES-45AA	BASIN C OUTLET	24	RC	930.21	P-45A	8 CY CL III RIPRAP
FES-45B	IRONWOOD BLVD	24	RC	931.18	P-45B	
FES-45BB	IRONWOOD BLVD	24	RC	930.21	P-45B	8 CY CL III RIPRAP
FES-45C	IRONWOOD BLVD	12	RC	931.18	P-45C	
FES-45CC	IRONWOOD BLVD	12	RC	930.21	P-45C	4 CY CL III RIPRAP
FES-46	BASIN A OUTLET	18	HDPE	931.07	P-46	
FES-46A	BASIN A OUTLET	18	HDPE	929.40	P-46	6 CY CL. III RIRAP
FES-47	WETLAND D OUTLET	24	HDPE	928.40	P-47	8 CY CL. III RIPRAP
FES-47A	WETLAND D OUTLET	24	HDPE	928.20	P-47A	

** PIPE LENGTH INCLUDES LENGTH OF APRON

PLOT DATE: 11/8/2021 3:40 PM

ISG

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JERREMY D. FOSS

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 SCHEDULES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

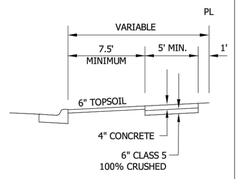
STORM SCHEDULES

SHEET

5

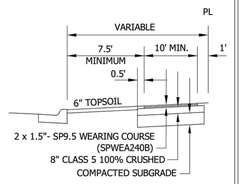
OF 76

PRELIMINARY NOT FOR CONSTRUCTION



CONC. MIX: 3F52 (MANUAL PLACEMENT)
3F32 (SLIP FORM PLACEMENT)

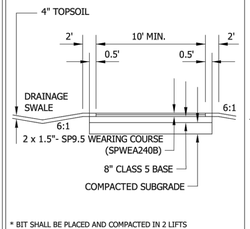
NEIGHBORHOOD SIDEWALK



* BIT SHALL BE PLACED AND COMPACTED IN 2 LIFTS

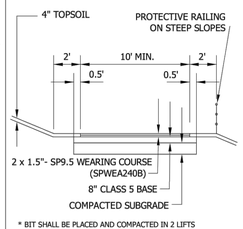
COMMUNITY ROADWAY TRAIL

URBAN SECTION



* BIT SHALL BE PLACED AND COMPACTED IN 2 LIFTS

COMMUNITY GREENWAY TRAIL



* BIT SHALL BE PLACED AND COMPACTED IN 2 LIFTS

COMMUNITY GREENWAY TRAIL

SIDE SLOPE LOCATION

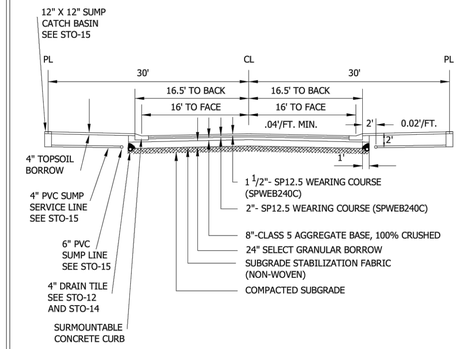
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TYPICAL PLACEMENT AND SECTION FOR WALKS AND TRAILS

CHASKA, MINNESOTA

LAST REVISION: APRIL 2016

PLATE NO. STR-9



STANDARD STREET SECTION (7 TON)

NOTES:
1. ALL ORGANIC OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM BENEATH THE ROADWAY.
2. A TEST ROLL OF THE PREPARED SUBGRADE SHALL BE PERFORMED BY THE OWNER IN THE PRESENCE OF A CITY INSPECTOR. THE CITY HAS THE AUTHORITY TO REQUIRE ADDITIONAL SUBGRADE CORRECTION OR ELIMINATE THE STABILIZATION FABRIC.
3. THE CITY RESERVES THE RIGHT TO MODIFY STREET SECTION AS REQUIRED.
4. NO CONCRETE WORK OR BITUMINOUS PAVING SHALL OCCURE AFTER OCTOBER 31ST UNLESS AUTHORIZED BY THE CITY OF CHASKA.
5. STREET WIDTH TO BE DETERMINED BY PROJECTED TRAFFIC VOLUMES.
6. RECYCLE MATERIAL ACCEPTED AS CLASS 5 AGGREGATE BASE SUBSTITUTE IF MEETING GUIDELINES.

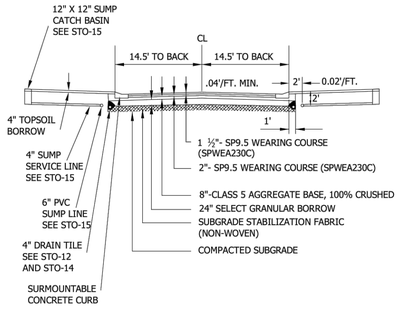
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TYPICAL SECTIONS FOR RESIDENTIAL STREETS 7 TON SECTION

CHASKA, MINNESOTA

LAST REVISION: JUNE 2012

PLATE NO. STR-7



PRIVATE STREET WITH CONCRETE CURB AND GUTTER

STA: 1+39 TO 6+67

NOTES:
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2. A TEST ROLL OF THE PREPARED SUBGRADE SHALL BE PERFORMED BY THE OWNER IN THE PRESENCE OF A CITY INSPECTOR. THE CITY HAS THE AUTHORITY TO REQUIRE ADDITIONAL SUBGRADE CORRECTION.OR ELIMINATE THE STABILIZATION FABRIC.
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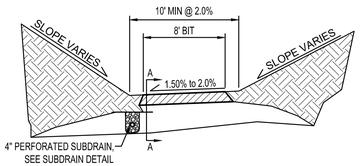
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TYPICAL SECTIONS FOR RESIDENTIAL STREETS PRIVATE SECTION

CHASKA, MINNESOTA

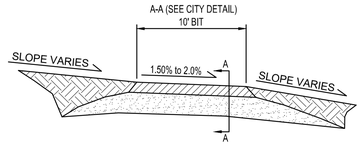
LAST REVISION: OCT 2016

PLATE NO. STR-7A



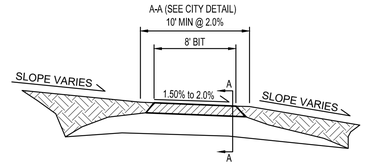
TYPICAL 8' TRAIL SECTION WITH SUBDRAIN

NTS ST950



TYPICAL 10' TRAIL SECTION

NTS ST950



TYPICAL 8' TRAIL SECTION

NTS ST950

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PROJECT

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RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

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DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TYPICAL STREET SECTIONS AND DETAILS

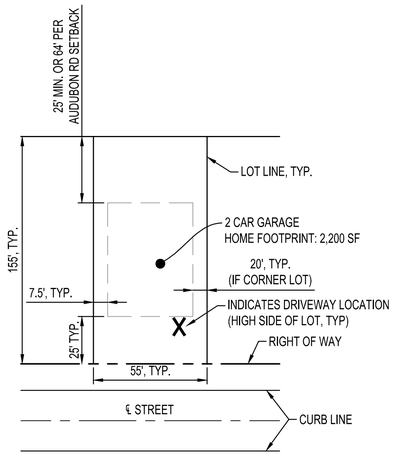
SHEET

6

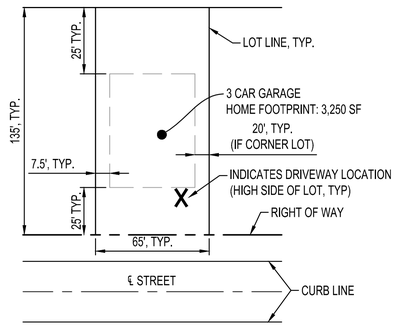
OF 76

PRELIMINARY NOT FOR CONSTRUCTION

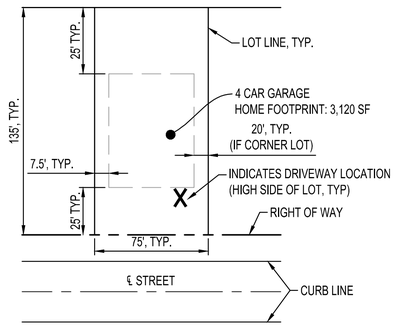
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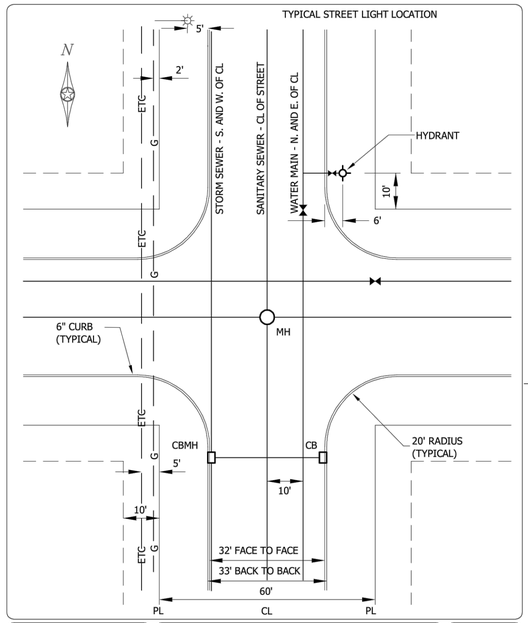
55' SINGLE FAMILY
TYPICAL LOT LAYOUT
NTS



65' SINGLE FAMILY
TYPICAL LOT LAYOUT
NTS



75' SINGLE FAMILY
TYPICAL LOT LAYOUT
NTS



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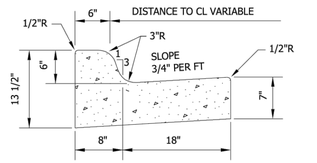
TYPICAL UTILITY LOCATIONS
(PUBLIC AND PRIVATE)

CHASKA, MINNESOTA

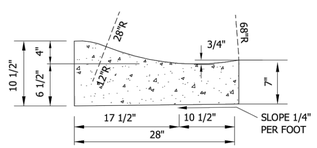
LAST REVISION:
MARCH 2016

PLATE NO.
GEN-5

CONCRETE MATERIALS AS FOLLOWS:
3F52 - MANUAL PLACEMENT
3F32 - SLIP FORM PLACEMENT



MNDOT B618



SURMOUNTABLE

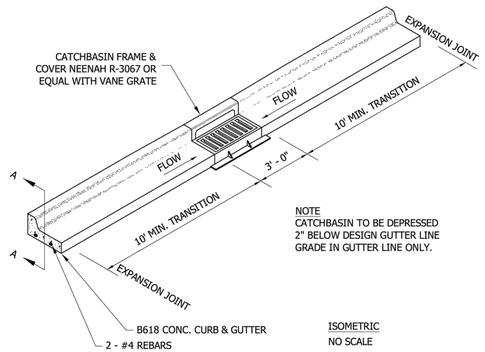
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CURB AND GUTTER

CHASKA, MINNESOTA

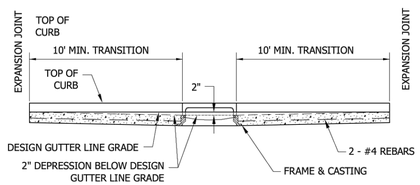
LAST REVISION:
APRIL 2016

PLATE NO.
STR-1



NOTE
CATCHBASIN TO BE DEPRESSED
2" BELOW DESIGN GUTTER LINE
GRADE IN GUTTER LINE ONLY.

ISOMETRIC
NO SCALE



SECTION A-A
NO SCALE

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B618 CURB & GUTTER
CONSTRUCTION AT CATCHBASIN

CHASKA, MINNESOTA

LAST REVISION:
MARCH 2008

PLATE NO.
STR-4

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

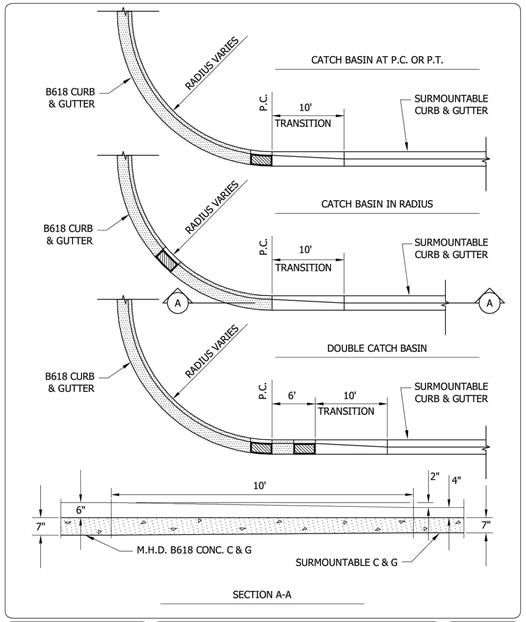
TITLE

TYPICAL DETAILS

SHEET
7
OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/29/2021 10:59 PM

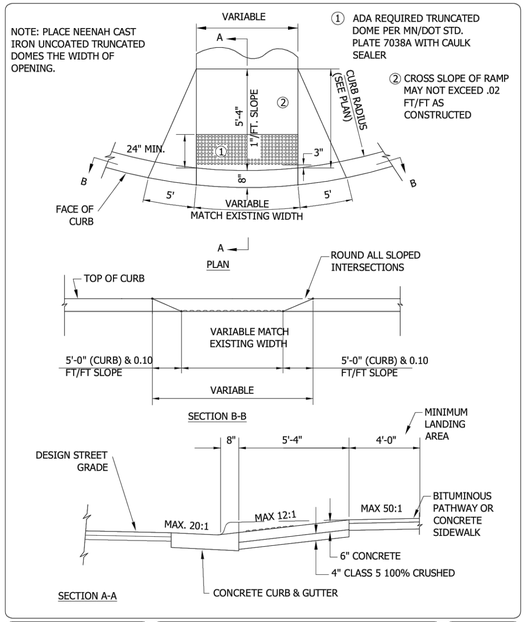


CONCRETE CURB & GUTTER TRANSITION

CHASKA, MINNESOTA

LAST REVISION: OCT. 1989

PLATE NO. STR-10

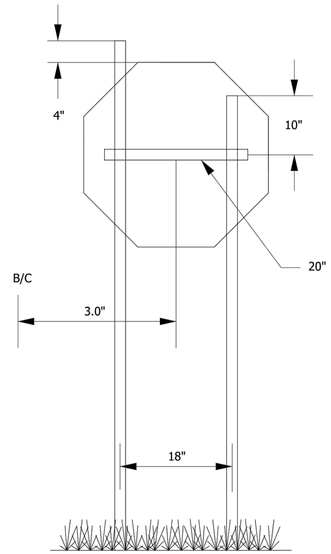


PEDESTRIAN CURB RAMP FOR PATHWAY/SIDEWALK

CHASKA, MINNESOTA

LAST REVISION: APRIL 2011

PLATE NO. STR-11



NOTES:
STOP SIGNS SHOULD BE INSTALLED 3' BEHIND B/C

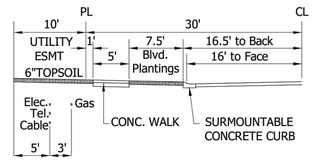
ALL STOP SIGNS SHALL BE INSTALLED WITH TWO POSTS UNLESS APPROVED BY OWNER

STOP SIGN INSTALLATION DETAIL

CHASKA, MINNESOTA

LAST REVISION: JUNE 2012

PLATE NO. STR-15



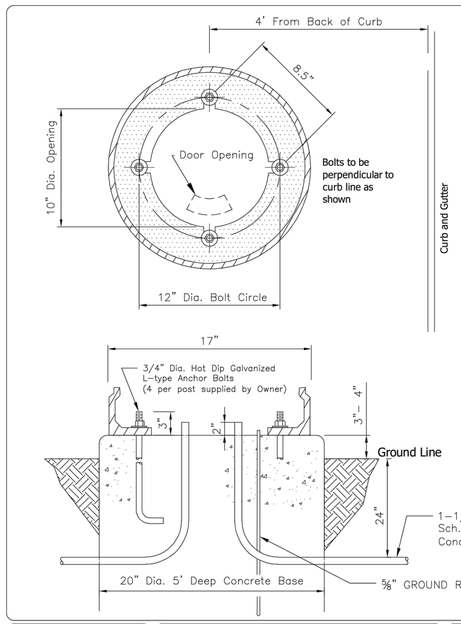
STANDARD RESIDENTIAL STREET

TYPICAL STREET COMPONENTS/DIMENSIONS RESIDENTIAL, COMMERCIAL & COLLECTOR

CHASKA, MINNESOTA

LAST REVISION: APRIL 2016

PLATE NO. STR-16

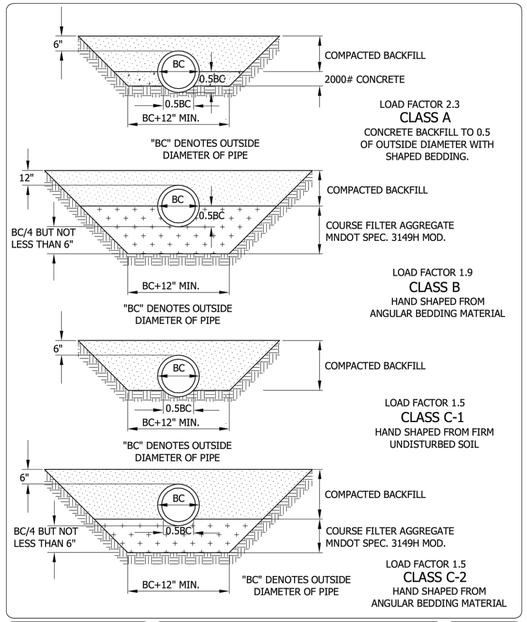


LIGHT POLE ANCHORAGE GUIDE AND LOCATION

CHASKA, MINNESOTA

LAST REVISION: JAN 2019

PLATE NO. ELC-01

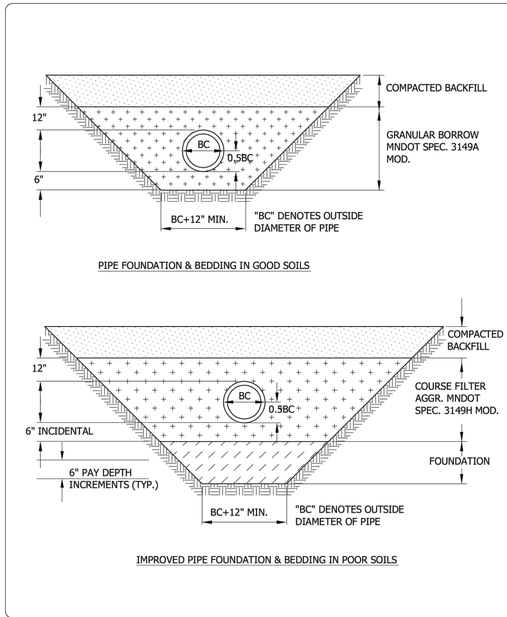


BEDDING METHODS FOR RCP OR DIP

CHASKA, MINNESOTA

LAST REVISION: MARCH 2001

PLATE NO. GEN-6



BEDDING METHODS FOR PVC

CHASKA, MINNESOTA

LAST REVISION: MARCH 2008

PLATE NO. GEN-7

NOTE:
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TYPICAL DETAILS

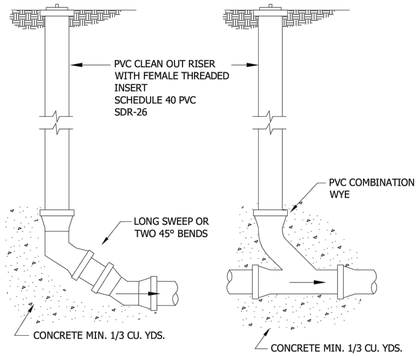
SHEET **8** OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/29/2021 10:59 PM

NOTE:
CLEANOUT CAP SHALL BE THREADED MALLEABLE IRON (GALVANIZED)

NOTE:
ENCLOSE LONG SWEEP BEND OR COMBINATION WYE IN CONCRETE AS SHOWN.



END OF LINE CLEANOUT

IN LINE CLEANOUT

NOTE:
CLEANOUT IS REQUIRED FOR EVERY 100 FEET OF SERVICE LENGTH.

NOTE:
1. IF CLEAN OUT IS IN DRIVEWAY, CONTRACTOR MUST INSTALL FORD A-1 CASTING, MARKED WITH "SEWER" ON LID.
2. IF VALVE BOX IS IN ROADWAY, CONTRACTOR MUST INSTALL TOP SECTION OF A VALVE BOX WITH LID MARKED "SEWER".

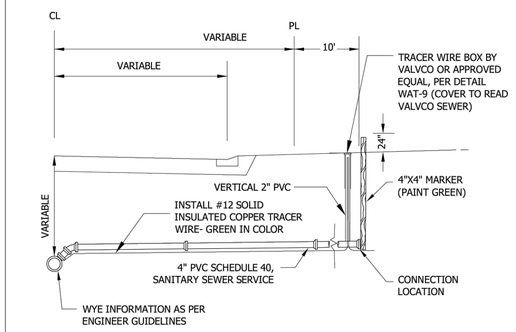
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SERVICE LINE CLEANOUTS

CHASKA, MINNESOTA

LAST REVISION: MARCH 2001

PLATE NO. SER-4



NOTES:
1. SEWER SERVICES, 4" SCHEDULE 40 PVC SEWER PIPE
2. SLOPE - 1/4" PER FOOT MINIMUM.
3. PIPE JOINTS SHALL BE NON GASKETED, SOLVENT WELD TYPE.
4. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 3149.2B1 EXCEPT THE LAST TEN FEET WHERE COARSE FILTER AGGREGATE (3149.2H) AGGREGATE WILL BE REQUIRED.
5. BENDS OF 45° OR LESS SHALL BE USED WITHIN THE LAST 5' OF THE SERVICE IF THE DEPTH OF THE SERVICE WOULD EXCEED 10'.
6. NO SERVICE RISERS LESS THAN 3 FEET SHALL BE PERMITTED.
7. A SEPARATE TRACER WIRE WILL EXTEND FROM THE FINISH GRADE AT TRACER WIRE BOX AND FOLLOW SEWER SERVICE TO STRUCTURE FOUNDATION. TRACER WIRE FROM BOX TO FOUNDATION BY OTHERS.
8. FOR DEPTHS GREATER THAN 22', SERVICE PIPE SHALL BE C900 FROM MAIN TO CONNECTION, WITH TRANSITION FITTING FROM C900 TO SCH 40 INSTALLED AT CONNECTION LOCATION.

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SEWER SERVICE CONNECTION

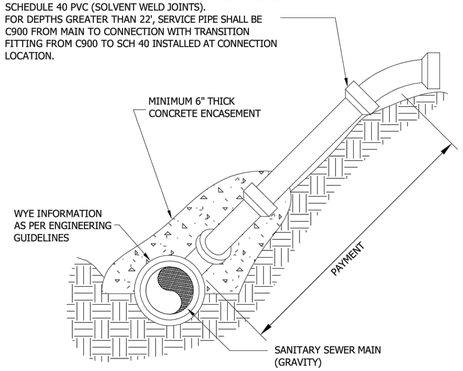
CHASKA, MINNESOTA

LAST REVISION: APRIL 2016

PLATE NO. SER-1

PVC PIPE
BED AND ENCASE IN SELECT GRANULAR, TYPICAL PVC APPLICATION.

SERVICE RISERS FOR SEWER MAINS LESS THAN 22' SHALL BE SCHEDULE 40 PVC (SOLVENT WELD JOINTS).
FOR DEPTHS GREATER THAN 22', SERVICE PIPE SHALL BE C900 FROM MAIN TO CONNECTION WITH TRANSITION FITTING FROM C900 TO SCH 40 INSTALLED AT CONNECTION LOCATION.



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SERVICE RISER

CHASKA, MINNESOTA

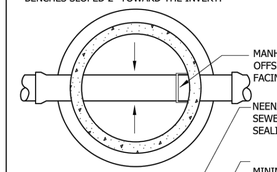
LAST REVISION: MARCH 2016

PLATE NO. SER-3

PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"



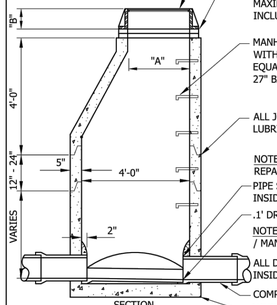
PLAN

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

NEENAH COVER **R-1642-5001**, LETTERED "SANITARY SEWER" WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATION FOR CASTING NUMBER.

MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. FINAL RING MATERIAL AND ADHESIVE TO BE SPECIFIED BY OWNER ON A PROJECT BASIS.

MAXIMUM 20"ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.



SECTION

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL)

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS AND RAMNECK.

NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.

PIPE SHALL BE CUT 2" FROM INSIDE FACE OF WALL.

.1' DROP ACROSS INVERTS MIN.

NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.

ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.

COMPACT TO TOP OF PIPE, TO FIRST JOINT.

MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS) .

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SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

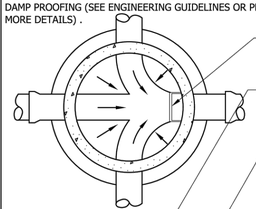
PLATE NO. SAN-1

PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R16420245	27"	7"
R1755G	27"	7"

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS) .



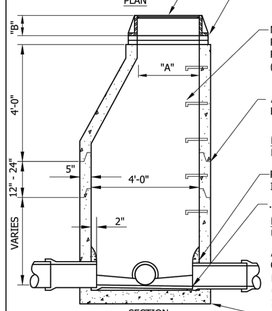
PLAN

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

(SEE UTILITY SCHEDULE FOR CASTINGS, VERIFY WITH CITY)
NEENAH COVER **R1642-5001**, LETTERED "SANITARY SEWER" WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATIONS FOR CASTING NUMBER

MINIMUM OF 2 MAXIMUM OF 4 ADJUSTING RINGS. FINAL RING MATERIAL AND ADHESIVE TO BE SPECIFIED BY OWNER ON A PROJECT BASIS.

MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING



SECTION

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL)

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS AND RAMNECK.

NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.

PIPE SHALL BE CUT 2" FROM INSIDE FACE OF WALL.

.1' DROP ACROSS INVERTS (MIN.)

NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.

ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

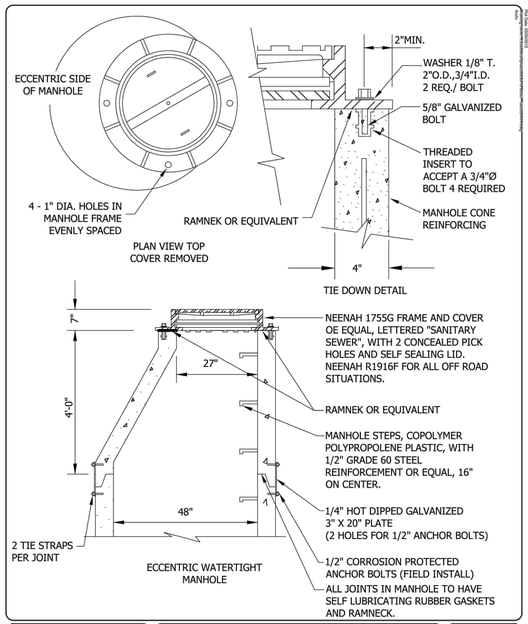
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SANITARY SEWER JUNCTION MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-2



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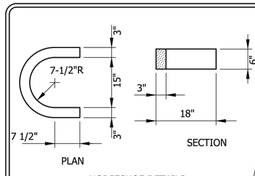
WATERTIGHT CASTING FOR SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-5

FRAME	A	B
R1642-2310B	27"	7"



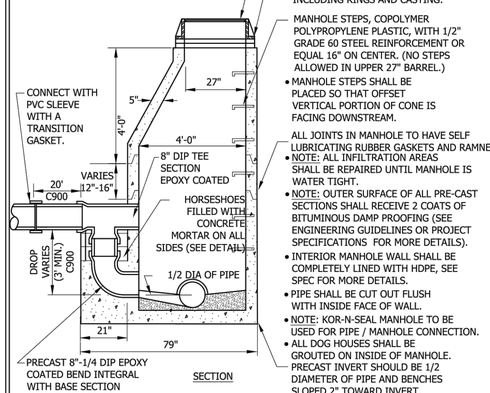
HORSESHOE DETAILS

NEENAH COVER **R-1642-5001**, LETTERED "SANITARY SEWER", WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECS. FOR CASTING NUMBERS.

- MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. FINAL RING MATERIAL AND ADHESIVE TO BE SPECIFIED BY OWNER ON A PROJECT BASIS.
- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.
- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)
- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS AND RAMNECK.

- NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.
- NOTE: OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS).
- INTERIOR MANHOLE WALL SHALL BE COMPLETELY LINED WITH HDPE, SEE SPEC FOR MORE DETAILS.
- PIPE SHALL BE CUT OUT FLUSH WITH INSIDE FACE OF WALL.
- NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.
- ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
- PRECAST INVERT SHOULD BE 1/2 DIAMETER OF PIPE AND BENCHES SLOPED 2" TOWARD INVERT.



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SANITARY SEWER DROP INLET MANHOLE

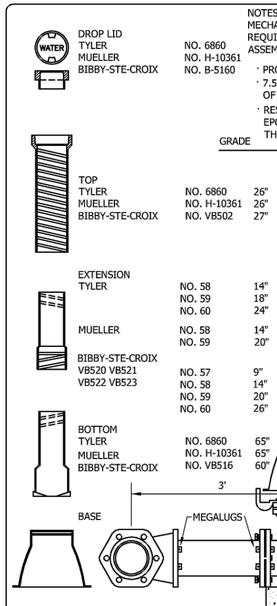
CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-4

NOTES: CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

- PROVIDE POLYWRAP AROUND ALL WATERMAIN
- 7.5' MINIMUM COVER REQUIRED OVER TOP OF WATER MAIN.
- RESTRAIN TEE AND VALVE WITH EPOXY COATED MEGALUG (OR EQUAL) THRUST RESTRAINTS.



- ADJUST TOP TO 1/2" BELOW GRADE. BOX TO BE SET TO PROVIDE 12" OF ADJUSTMENT.
- TYLER NO. 6860 MUELLER NO. H-10357 BIBBY-STE-CROIX B-5001 GATE VALVE BOX, SCREW TYPE, 3 PIECE, 5 1/4" SHAFT, SIZE G BOX, 7'-6" EXTENDED, #6 ROUND BASE
- PROVIDE VALVE STEM RISERS TO WITHIN 1 FOOT OF THE SURFACE.

GATE VALVE ADAPTER: 1/4" STEEL WITH PROTECTIVE COATING, 1/2" RUBBER GASKET INSTALLED BETWEEN THE GATE VALVE AND GATE VALVE ADAPTER.

- RESILIANT WEDGE VALVE CONFORMING TO AWWA C509-DI OR C515 STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT

6 oz. ZINC ANODE CAP. SEE ENGINEERING GUIDELINES

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GATE VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-1

ISG

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JERREMY D. FOSS

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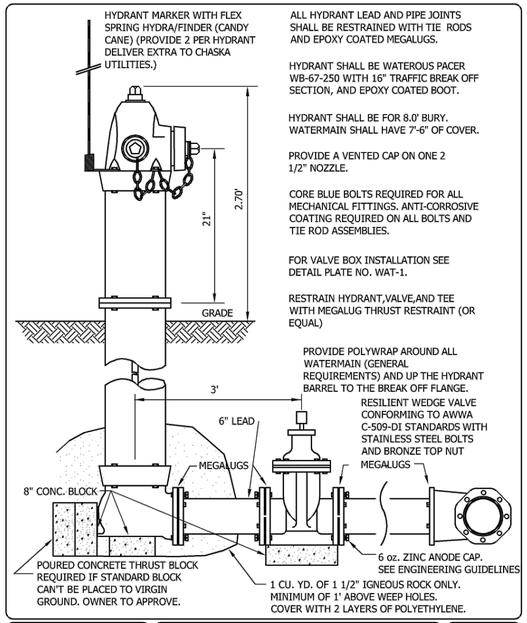
TYPICAL DETAILS

SHEET

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ALL HYDRANT LEAD AND PIPE JOINTS SHALL BE RESTRAINED WITH TIE RODS AND EPOXY COATED MEGALUGS.

HYDRANT SHALL BE WATEROUS PACER WB-67-250 WITH 16" TRAFFIC BREAK OFF SECTION, AND EPOXY COATED BOOT.

HYDRANT SHALL BE FOR 8.0' BURY. WATERMAIN SHALL HAVE 7'-6" OF COVER.

PROVIDE A VENTED CAP ON ONE 2 1/2" NOZZLE.

CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

FOR VALVE BOX INSTALLATION SEE DETAIL PLATE NO. WAT-1.

RESTRAIN HYDRANT,VALVE,AND TEE WITH MEGALUG THRUST RESTRAINT (OR EQUAL)

PROVIDE POLYWRAP AROUND ALL WATERMAIN (GENERAL REQUIREMENTS) AND UP THE HYDRANT BARREL TO THE BREAK OFF FLANGE.

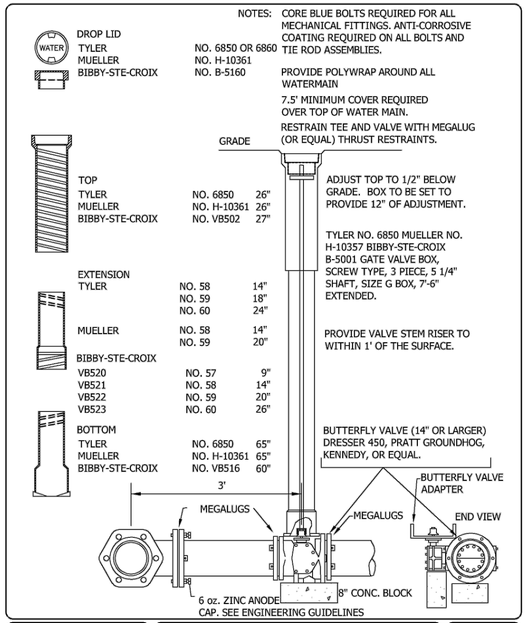
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WATEROUS PACER HYDRANT AND VALVE INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-2



NOTES:

CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

PROVIDE POLYWRAP AROUND ALL WATERMAIN

7.5' MINIMUM COVER REQUIRED OVER TOP OF WATER MAIN.

RESTRAIN TEE AND VALVE WITH MEGALUG (OR EQUAL) THRUST RESTRAINTS.

ADJUST TOP TO 1/2" BELOW GRADE. BOX TO BE SET TO PROVIDE 12" OF ADJUSTMENT.

TYLER NO. 6850 MUELLER NO. H-10357 BIBBY-STE-CROIX B-5001 GATE VALVE BOX, SCREW TYPE, 3 PIECE, 5 1/4" SHAFT, SIZE G BOX, 7'-6" EXTENDED.

PROVIDE VALVE STEM RISER TO WITHIN 1' OF THE SURFACE.

BUTTERFLY VALVE (14" OR LARGER) DRESSER 450, PRATT GROUNDHOG, KENNEDY, OR EQUAL.

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BUTTERFLY VALVE AND BOX INSTALLATION

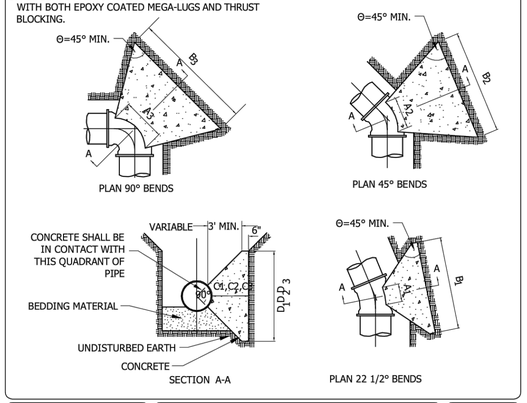
CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-3

NOTES:
1. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POURED AGAINST FIRM UNDISTURBED EARTH.
2. DIMENSION C1,C2,C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE Θ EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1,A2,A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS.
4. PROVIDE POLYETHYLENE WRAP AROUND ALL WATERMAIN.
5. ALL BENDS AND FITTINGS SHALL BE RESTRAINED WITH BOTH EPOXY COATED MEGA-LUGS AND THRUST BLOCKING.

PIPE SIZE	BUTTRESS DIMENSIONS					
	22 1/2° BEND		45° BEND		90° BEND	
	B_1	D_1	B_2	D_2	B_3	D_3
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-6"	2'-8"	2'-0"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16"	3'-0"	2'-0"	3'-10"	3'-0"	6'-2"	3'-6"
20"	3'-6"	2'-8"	5'-6'	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"
30"	-	-	9'-3"	6'-0"	17'-0"	6'-0"



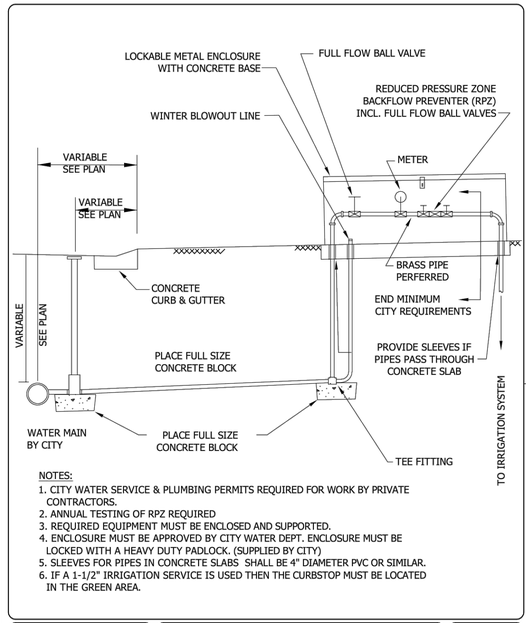
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CONCRETE THRUST BLOCKING

CHASKA, MINNESOTA

LAST REVISION: APRIL 2005

PLATE NO. WAT-4



NOTES:
1. CITY WATER SERVICE & PLUMBING PERMITS REQUIRED FOR WORK BY PRIVATE CONTRACTORS.
2. ANNUAL TESTING OF RPZ REQUIRED
3. REQUIRED EQUIPMENT MUST BE ENCLOSED AND SUPPORTED.
4. ENCLOSURE MUST BE APPROVED BY CITY WATER DEPT. ENCLOSURE MUST BE LOCKED WITH A HEAVY DUTY PADLOCK. (SUPPLIED BY CITY)
5. SLEEVES FOR PIPES IN CONCRETE SLABS SHALL BE 4" DIAMETER PVC OR SIMILAR.
6. IF A 1-1/2" IRRIGATION SERVICE IS USED THEN THE CURBSTOP MUST BE LOCATED IN THE GREEN AREA.

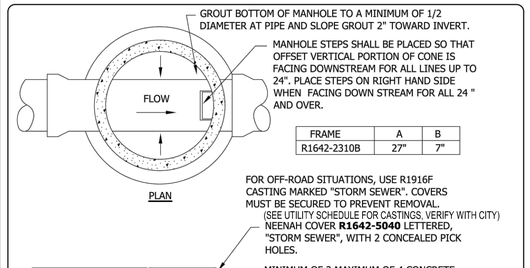
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IRRIGATION SERVICE BY PRIVATE CONTRACTOR

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SER-6



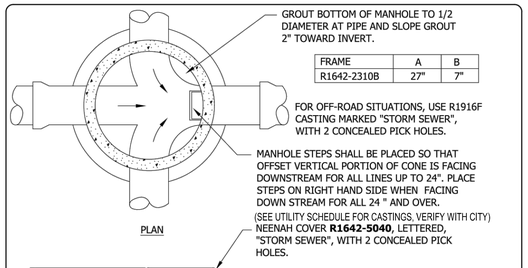
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STORM SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-1



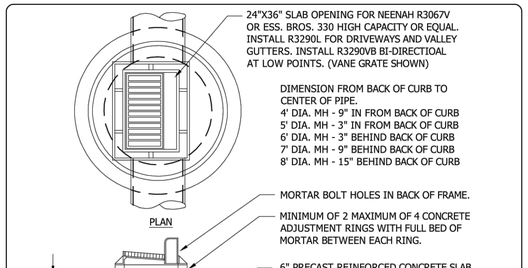
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STORM SEWER JUNCTION MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-2



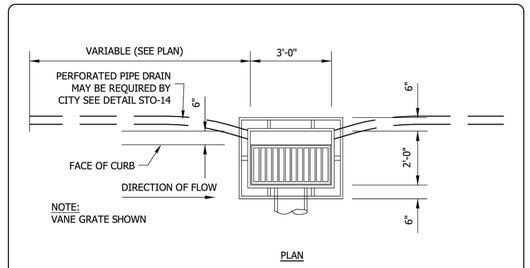
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TYPE II CATCHBASIN MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-5



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TYPE II CATCHBASIN

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-6

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

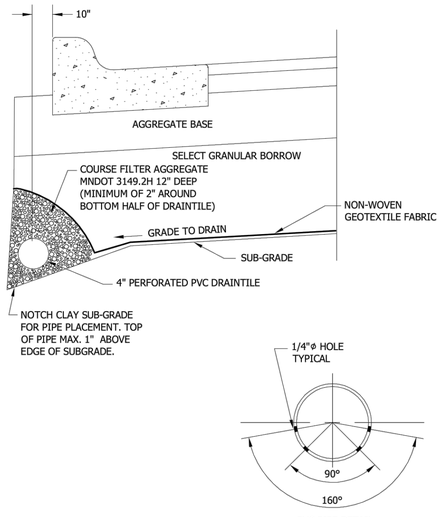
TYPICAL DETAILS

SHEET

10 OF 76

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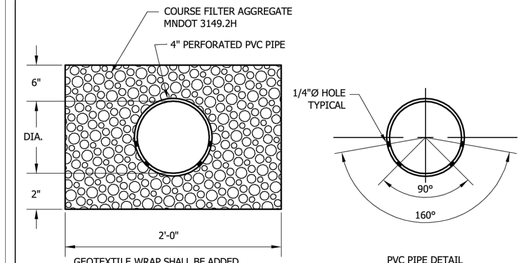
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PVC PIPE DETAIL

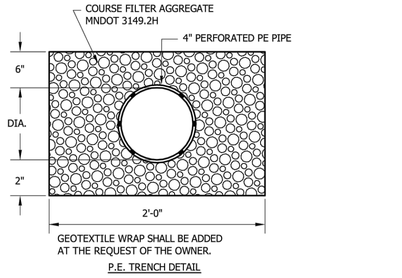
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PERFORATED PVC DRAINTILE PIPE BELOW CONCRETE CURB	LAST REVISION: NOV. 2016
CHASKA, MINNESOTA	PLATE NO. STO-12



PVC TRENCH DETAIL

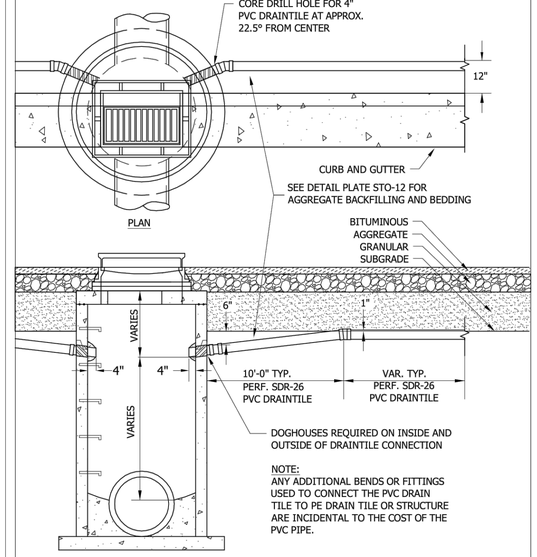
PVC PIPE DETAIL



P.E. TRENCH DETAIL

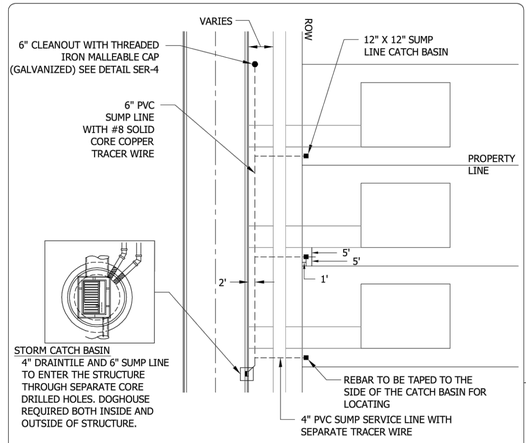
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PERFORATED PIPE TRENCH DETAIL	LAST REVISION: NOV. 2014
CHASKA, MINNESOTA	PLATE NO. STO-13



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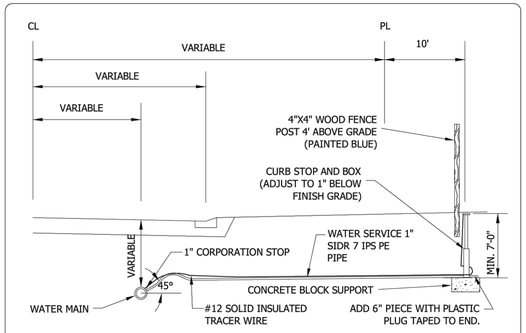
DRAINTILE INSTALLATION INTO CATCHBASIN MANHOLE	LAST REVISION: APRIL 2016
CHASKA, MINNESOTA	PLATE NO. STO-14



NOTES:
1. 6" PVC SUMP LINE TO BE INSTALLED 2' BELOW GRADE AND TO BE CORE DRILLED INTO NEAREST DOWNSTREAM CATCH BASIN.
2. EXTEND 4" PVC SUMP SERVICE FROM MAIN TO RIGHT OF WAY.
3. ALTERNATE CONFIGURATIONS ONLY WITH THE APPROVAL OF OWNER.
4. SEE ENGINEERING GUIDELINES OR SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. MAXIMUM SUMP LINE LENGTH 300'. IF LONGER SUMP LINE IS NECESSARY, INTERMEDIATE CLEANOUTS WILL BE REQUIRED EVERY 200'.
6. INSTALL 4" X 4" POST ADJACENT TO EACH SUMP CATCH BASIN FOR PROTECTION DURING CONSTRUCTION.
7. CLEAN OUT TO BE PLACED ON PROPERTY LINE AT END OF LAST SERVICE LINE. IF SERVICE FALLS IN DRIVEWAY THE MAINLINE WILL BE EXTENDED BEYOND DRIVEWAY/ALLEY TO ENSURE THE CLEANOUT IS IN GREEN SPACE.
8. A SEPARATE TRACER WIRE WILL EXTEND FROM THE FINISHED GRADE CLEANOUT LOCATION WITH TRACER WIRE BOX AND FOLLOW THE SUMP LINE TO THE STRUCTURE LOCATION.

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PVC SUMP LINE BEHIND CURB	LAST REVISION: MAY 2016
CHASKA, MINNESOTA	PLATE NO. STO-15



PVC WATER MAIN
STAINLESS STEEL
SERVICE SADDLE
SMITH-BLAIR 372 OR
APPROVED EQUAL

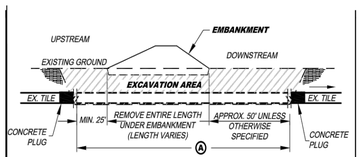
NOTE: FOR SERVICES LARGER THAN 1" A TAPPING SLEEVE IS REQUIRED. ROCKWELL TYPE 230, FULL CIRCLE, WITH TAP THREADED FOR APPROPRIATE SIZE COPPER CORPORATION STOP. (OR EQUAL)

CORPORATION STOP	CURB STOP	CURB BOX
MUELLER B25009N	MUELLER B25222N	MUELLER H-10300-N OR H-10302-N
FORD FB1001-4Q	FORD B66444MQ	FORD EM2-75-56R-NL OR EM2-75-57R-NL
A.Y. MCDONALD 74704B	A.Y. MCDONALD 76104	A.Y. MCDONALD 75615 OR 75614

NOTES:
1. CURB BOX SHALL HAVE A STATIONARY ROD.
2. CURB BOX SHALL EXTEND FROM 78" TO 90".
3. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 3149.2B1 EXCEPT THE LAST TEN FEET WHERE COARSE FILTER AGGREGATE (3149.2H) WILL BE REQUIRED.
4. IF CURB STOP IS IN DRIVEWAY, CONTRACTOR MUST INSTALL A FORD A-1 CASTING, MARKED WITH "WATER" ON LID.
5. CURB BOX LID SHALL BE MUELLER #89375 "TW" OR EQUAL.
6. ALL BRASS FITTINGS SHALL BE "NO LEAD BRASS".
7. PIPE INSERT STIFFENERS REQUIRED FOR FITTING CONNECTIONS.
8. HDPE SERVICE PIPE SHALL BE MANUFACTURED BY ENDOPURE OR BLUE ULTRA PIPE.

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WATER SERVICE CONNECTION HDPE PIPE	LAST REVISION: MARCH 2016
CHASKA, MINNESOTA	PLATE NO. SER-2A



TYPE B

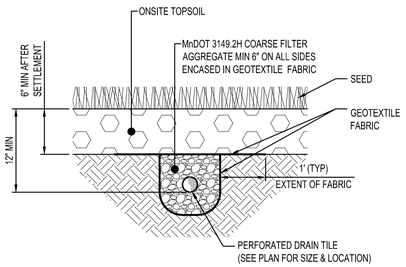
CONSTRUCTION REQUIREMENTS

SHOULD UNEXPECTED DRAIN TILE (NOT SHOWN ON PLAN DRAWINGS) BE DISCOVERED DURING CONSTRUCTION THE PROJECT ENGINEER SHALL BE CONTACTED FOR APPROPRIATE COURSE OF ACTION FOR THE TILE BLOCK.

TILE REMOVAL (EXCAVATION):
- THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE EXCAVATION AND REMOVAL OF ALL IDENTIFIED TILE DRAINAGE SYSTEMS.
- IDENTIFIED DRAINAGE TILE SHALL BE EXCAVATED AND REMOVED AS REQUIRED BY THE DRAWINGS, AS STAKED, OR AS OTHERWISE SPECIFIED BY THE ENGINEER.
- UNLESS OTHERWISE SPECIFIED, ALL FRAGMENTS OF THE DRAINAGE TILE SHALL BE REMOVED FROM THE EXCAVATED TRENCH AND ASSOCIATED BACKFILL MATERIAL.
- EACH END OF THE EXPOSED DRAINAGE TILE IN THE EXCAVATED TRENCH SHALL BE PLUGGED WITH CONCRETE (MIN. 2' IN LENGTH). PLUGS SHALL BE WATER TIGHT.
- BACKFILL AND TAMP BY HAND A MINIMUM DISTANCE OF TWO FEET AROUND EACH SEALED TILE END WITH SUITABLE SOIL MATERIAL. BACKFILL THE REMAINING TRENCH WITH THE MOST SUITABLE MATERIAL AVAILABLE AND COMPACT TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE SURROUNDING UNDISTURBED SOIL.

TILE PLUGGING:
- THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE PLUGGING OF ALL IDENTIFIED TILE DRAINAGE SYSTEMS.
- IDENTIFIED DRAINAGE TILE SHALL BE PLUGGED AS REQUIRED BY THE DRAWINGS, AS STAKED, OR AS OTHERWISE SPECIFIED BY THE ENGINEER.
- MEANS TO ACCESS THE TILE DRAINAGE SYSTEM TO CONSTRUCT APPROPRIATE PLUGS SHALL BE APPROVED BY THE ENGINEER.
- CONSTRUCTED PLUGS SHALL BE MADE PERMANENT AND WATERTIGHT. METHODS TO PLUG THE TILE SYSTEM INCLUDE USING SAND SLURRY MIXES, CONCRETE GROUT, OR CERTAIN EXPANDING POLYURETHANE FOAMS. IF PLUGGING METHOD IS NOT SPECIFIED, THE METHOD PROPOSED REQUIRES ENGINEER'S APPROVAL.
- AREAS THAT ARE EXCAVATED TO ACCESS THE TILE SYSTEM SHALL BE CAREFULLY BACKFILLED AND COMPACTED IN LIFTS WITH SUITABLE SOIL MATERIAL. BACKFILL SHALL BE COMPACTED TO A DENSITY EQUAL TO SURROUNDING UNDISTURBED SOIL.

TILE PLUGGING DETAIL
NTS SD320



SUBSURFACE DRAIN
NTS SD510

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

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DRAWN BY	JRS
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ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TYPICAL DETAILS

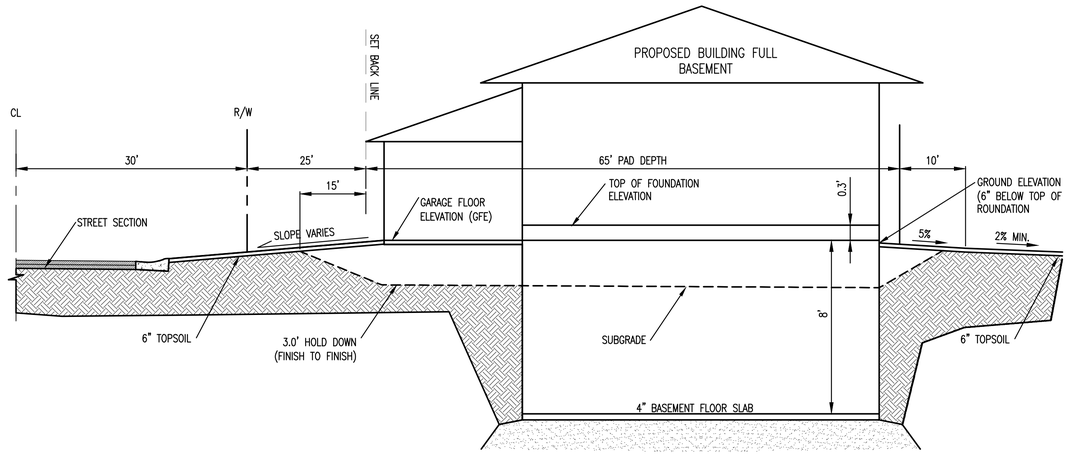
SHEET

11

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/29/2021 10:59 PM



SINGLE FAMILY FULL BASEMENT (FB)
3.0' HOLD DOWN

N.T.S.

NOTE:

FB = FULL BASEMENT

LO = LOOK OUT BASEMENT

WO = WALKOUT BASEMENT

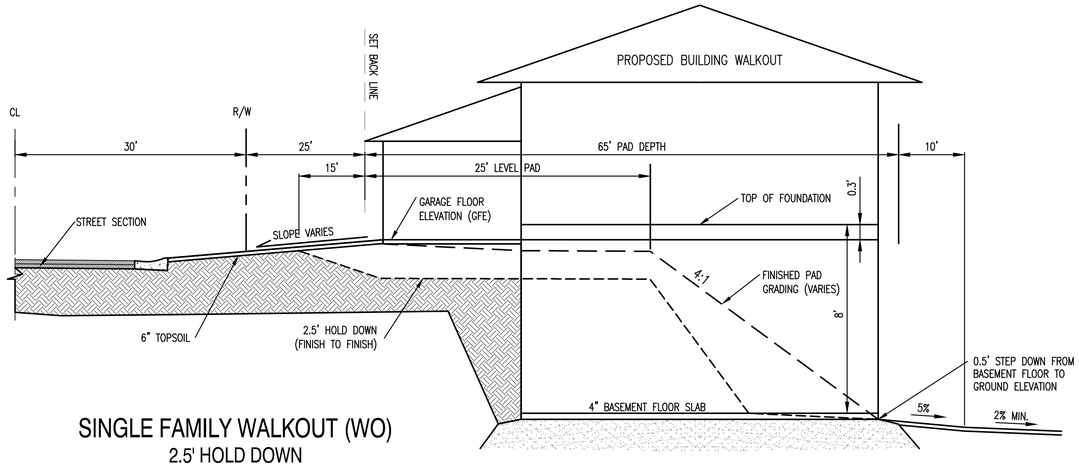
SELO = SPLIT ENTRY LOOKOUT BASEMENT

SEWO = SPLIT ENTRY WALKOUT BASEMENT

SOG = SLAB ON GRADE

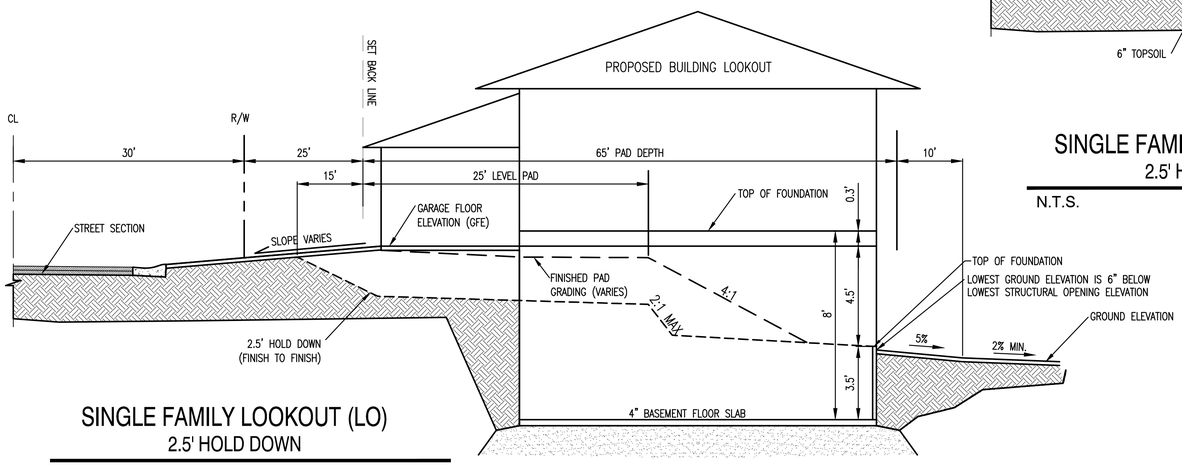
THE FIRST ELEVATION LISTED REFERS TO THE GARAGE FLOOR ELEVATION (GFE). THE SECOND ELEVATION LISTED REFERS TO THE LOWEST STRUCTURAL OPENING (LSO). IF NO SECOND ELEVATION IS LISTED THEN THE PRIMARY ELEVATION IS THE LOWEST STRUCTURAL OPENING.

SEE DETAILS OF EACH TYPE.



SINGLE FAMILY WALKOUT (WO)
2.5' HOLD DOWN

N.T.S.



SINGLE FAMILY LOOKOUT (LO)
2.5' HOLD DOWN

N.T.S.

NOTE:
THESE DETAILS ARE FOR 65-FT DEEP SINGLE FAMILY HOME PRODUCTS.

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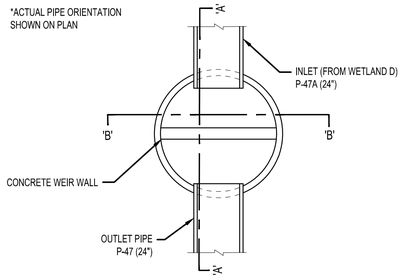
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TYPICAL DETAILS

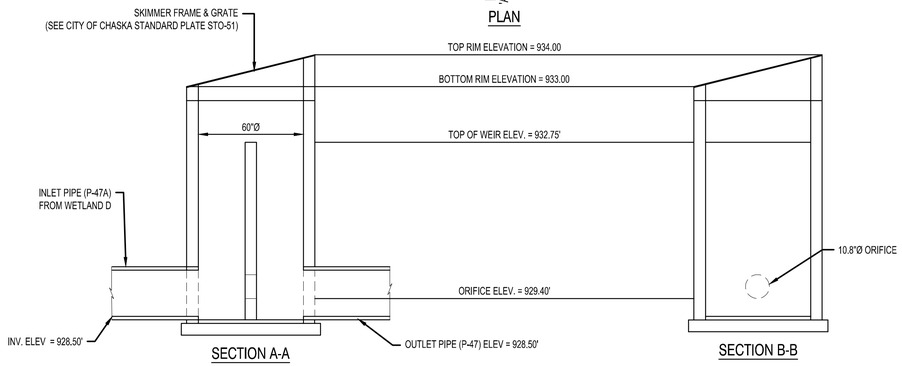
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OF 76



PLAN



WETLAND D OUTLET STRUCTURE

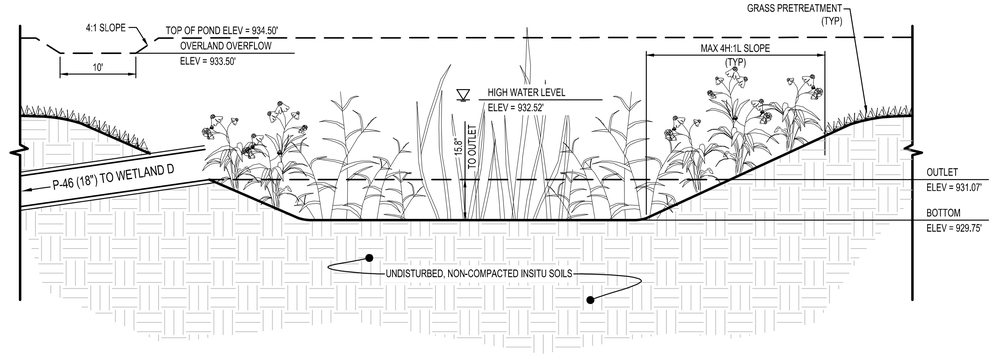
NTS SD700

INFILTRATION BASIN CONSTRUCTION:

A. WORK SHALL INCLUDE - ALL EXCAVATION AND CONSTRUCTION AS OUTLINED IN THE PLANS, SPECIFICATIONS AND DETAILS OUTLINING THE CONSTRUCTION OF THE INFILTRATION BASIN.
B. THE CONTRACTOR SHALL MAINTAIN SILT FENCE AROUND THE PERIMETER OF THE INFILTRATION BASIN DURING ALL PHASES OF CONSTRUCTION. THE INFILTRATION AREA MUST BE STAKED OFF AND MARKED TO KEEP ALL CONSTRUCTION TRAFFIC, EQUIPMENT AND MATERIAL STOCKPILES OUT OF THE PROPOSED INFILTRATION AREA.
C. THE CONTRACTOR SHALL ENSURE THAT THE INFILTRATION BASIN IS NOT USED AS A SEDIMENT TRAP DURING CONSTRUCTION AND THAT NO RUNOFF ENTERS THE BASIN PRIOR TO THE COMPLETION OF CONSTRUCTION AND COMPLETE STABILIZATION OF SURROUNDING AREAS DRAINING TO THE BASIN. ALL UPLAND DRAINAGE MUST BE DIVERTED TO PREVENT RUNOFF FROM ENTERING INFILTRATION BASIN WORK AREA.
D. INFILTRATION BASIN SHALL BE CONSTRUCTED AT THE END OF THE PROJECT AFTER ALL AREAS SURROUNDING IT AND DRAINING INTO IT HAVE BEEN CONSTRUCTED AND FULLY STABILIZED, THIS INCLUDES THE SANITARY SEWER. IN ORDER TO AVOID SOIL COMPACTION IN THE BASIN NO EQUIPMENT SHALL BE DRIVEN IN THE AREA OF THE BASIN PRIOR TO ITS CONSTRUCTION, AND WHEN IT IS CONSTRUCTED ONLY LIGHT EARTH MOVING EQUIPMENT WITH TRACKS SHALL BE USED.
E. AFTER FINAL GRADING THE BASIN'S FLOOR SHALL BE TILLED TO A DEPTH OF AT LEAST 6 INCHES TO PROVIDE A WELL-AERATED, POROUS SURFACE. SMEARING OF THE SOIL IN THE BASIN SHALL BE AVOIDED AND IF SMEARING DOES OCCUR IT SHALL BE CORRECTED BY RAKING OR RETILLING OF THE BASIN.
F. IMMEDIATELY FOLLOWING INFILTRATION BASIN CONSTRUCTION, THE ENTIRE BASIN SHALL BE SEEDED AND STABILIZED AS INDICATED IN THE PLANS. INFILTRATION BASIN MUST BE FULLY STABILIZED PRIOR TO ANY UPSTREAM RUNOFF BEING DIRECTED TO BASIN.
G. INFILTRATION FACILITIES SHALL NOT BE EXCAVATED WITHIN 3-FT OF FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED, ANY ACCUMULATED SEDIMENT MUST BE REMOVED IN A MANNER THAT PREVENTS COMPACTION OF THE BOTTOM. TO PROVIDED A WELL AERATED, HIGHLY POROUS SURFACE, THE SOILS BELOW AN INFILTRATION PRACTICE MUST BE LOOSENED TO A MINIMUM DEPTH OF 18-INCHES PRIOR TO PLANTING

BASIN SEEDING

REFER TO SITE RESTORATION PLAN FOR BASIN SEEDING REQUIREMENTS.



BASIN A INFILTRATION BASIN

NTS SD800

INFILTRATION BASIN CONSTRUCTION:

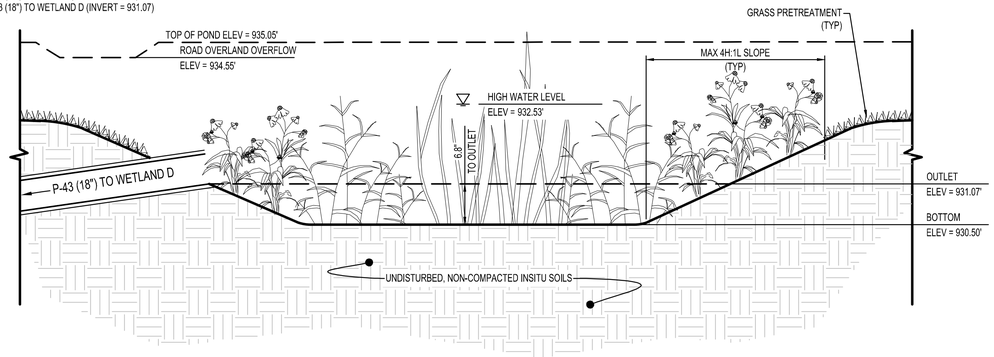
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B. THE CONTRACTOR SHALL MAINTAIN SILT FENCE AROUND THE PERIMETER OF THE INFILTRATION BASIN DURING ALL PHASES OF CONSTRUCTION. THE INFILTRATION AREA MUST BE STAKED OFF AND MARKED TO KEEP ALL CONSTRUCTION TRAFFIC, EQUIPMENT AND MATERIAL STOCKPILES OUT OF THE PROPOSED INFILTRATION AREA.
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E. AFTER FINAL GRADING THE BASIN'S FLOOR SHALL BE TILLED TO A DEPTH OF AT LEAST 6 INCHES TO PROVIDE A WELL-AERATED, POROUS SURFACE. SMEARING OF THE SOIL IN THE BASIN SHALL BE AVOIDED AND IF SMEARING DOES OCCUR IT SHALL BE CORRECTED BY RAKING OR RETILLING OF THE BASIN.
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BASIN SEEDING:

REFER TO SITE RESTORATION PLAN FOR BASIN SEEDING REQUIREMENTS.

OUTLETS:

P-42 (18") TO BASIN A (INVERT = 930.50)
P-43 (18") TO WETLAND D (INVERT = 931.07)

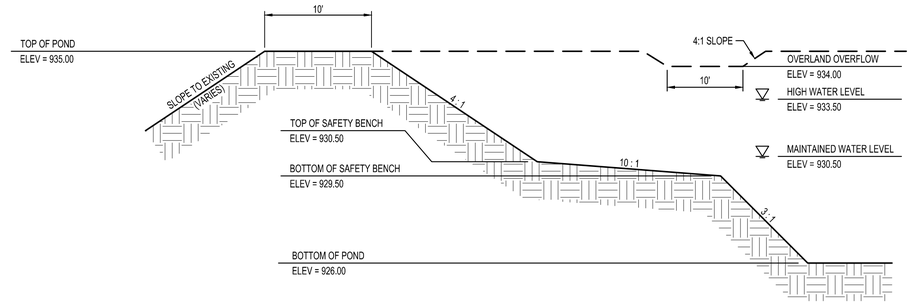


BASIN B INFILTRATION BASIN

NTS SD800

OUTLETS:

P-44 (15") TO BASIN B (INVERT = 930.50)
P-44A (15") TO BASIN B (INVERT = 930.50)
P-45 (24") TO WETLAND D (INVERT = 931.18)
P-45A (24") TO WETLAND D (INVERT = 931.18)
P-45B (12") TO WETLAND D (INVERT = 931.18)



BASIN C CROSS SECTION

NTS SD726

ISG

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

STORM WATER BASIN DETAILS

SHEET

13

OF 76

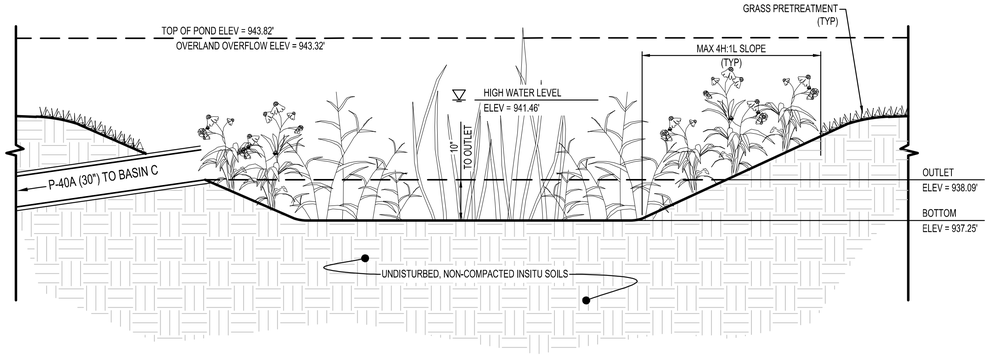
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PLOT DATE: 2/2/2021 10:59 PM

INFILTRATION BASIN CONSTRUCTION:

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BASIN SEEDING:
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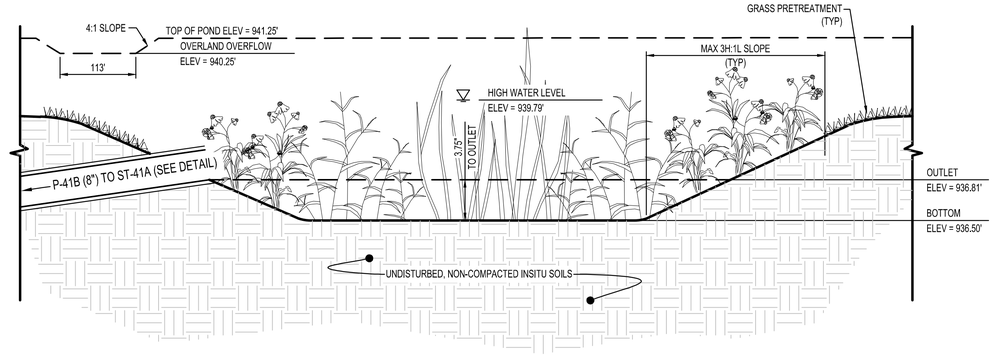


BASIN E INFILTRATION BASIN
NTS SD800

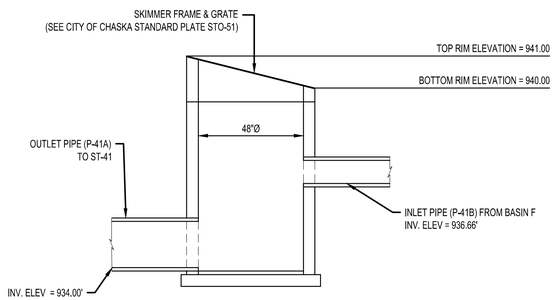
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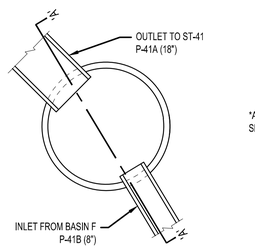
BASIN SEEDING:
REFER TO SITE RESTORATION PLAN FOR BASIN SEEDING REQUIREMENTS.



BASIN F INFILTRATION BASIN
NTS SD800



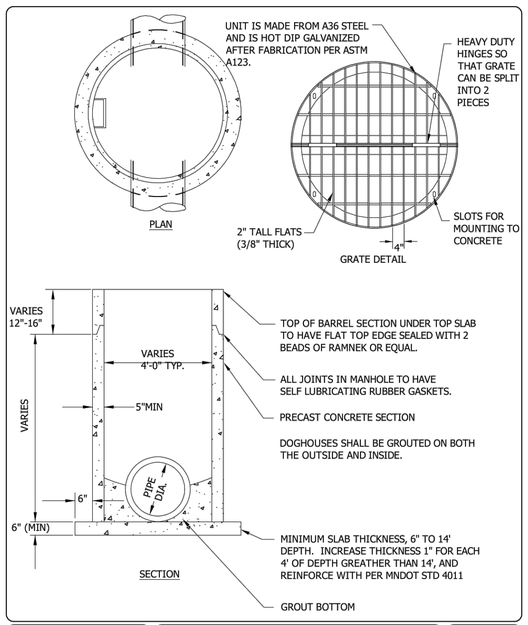
SECTION A-A



PLAN

*ACTUAL PIPE ORIENTATION SHOWN ON PLAN

BASIN F OUTLET STRUCTURE
NTS SD700



TYPE II
CATCHBASIN MANHOLE
POND SKIMMER
CARVER, MINNESOTA

LAST REVISION: MARCH 2018
PLATE NO. STO-5A

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 DETAILS
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REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

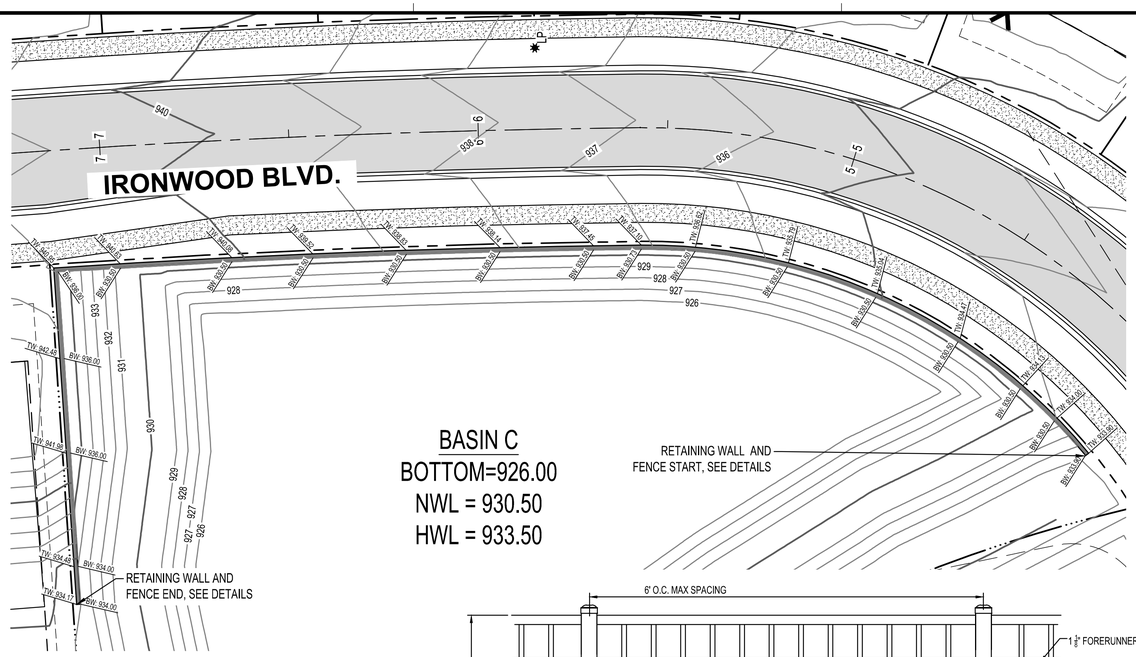
TITLE

STORM WATER BASIN DETAILS

SHEET
14
OF 76

PRELIMINARY NOT FOR CONSTRUCTION

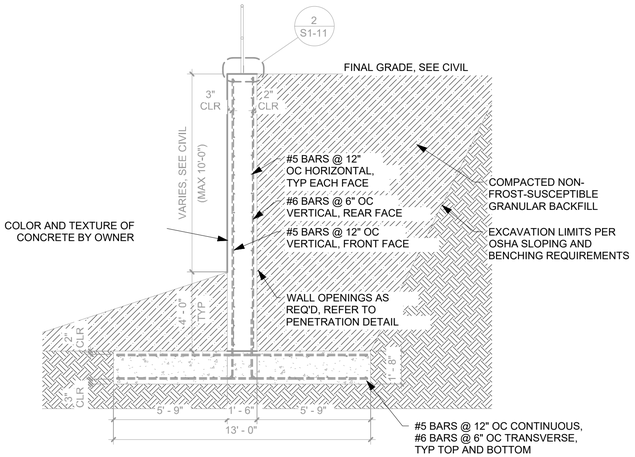
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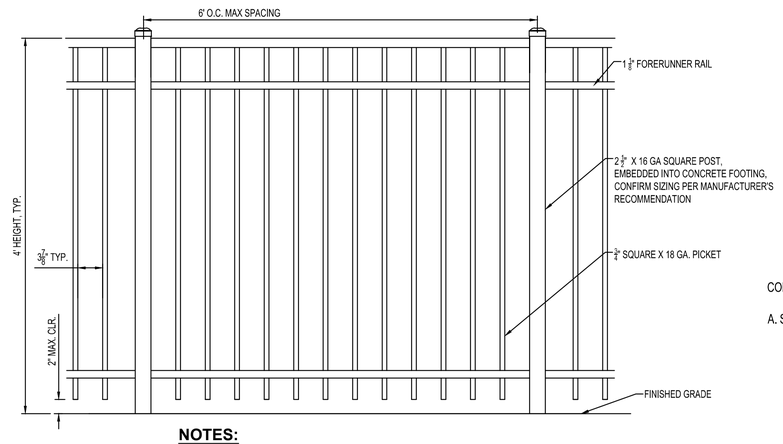
BASIN C
BOTTOM=926.00
NWL = 930.50
HWL = 933.50

0 20 40
SCALE IN FEET

N



TYPICAL WALL SECTION
NTS



NOTES:

FENCE AND ALL COMPONENTS SHALL BE BLACK COLOR

TRAIL FENCE
NTS

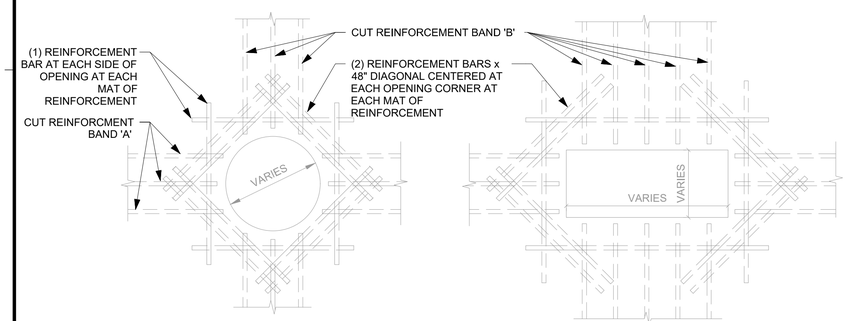
CONSTRUCTION NOTES:

A. SPECIFICATIONS
1. RETAINING WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS.
   a. NON-FROST-SUSCEPTIBLE GRANULAR BACKFILL SHALL BE CRUSHED STONE OR CONCRETE, OR GRANULAR FILL WITH A GRADATION OF 100% PASSING 1 INCH, 75%-100% PASSING 3/4", <60% PASSING #4, <35% PASSING #40, AND <5% PASSING #200.
   b. ENGINEERED FILL SHALL BE SOILS WITH A PLASTICITY INDEX LESS THAN 6 PER ASTM D4318; UNSUITABLE SOILS INCLUDE ORGANIC AND UNIFIED SOIL CLASSIFICATION SYSTEM GROUPS OF SC, CL, ML, CH, OH, MH, OL, OR PT.
2. CONCRETE SHALL BE NORMAL WEIGHT, UNO, AND MEET THE FOLLOWING CRITERIA.
   a. f'c = 4,500 psi
   b. 6% +/- 1.5% AIR ENTRAINMENT
   c. 0.55 MAXIMUM WATER-TO-CEMENT RATIO
   d. CEMENT SHALL CONFORM TO ASTM C150, TYPE I/II
   e. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED ACCORDANCE WITH ASTM C94.
3. FOUNDATION NET ALLOWABLE SOIL BEARING PRESSURE IS 2,000 PSF (PRESUMED), AND SHALL BE VERIFIED IN FIELD BY GEOTECHNICAL ENGINEER.
   a. THE DESIGN FROST PENETRATION DEPTH FOR UNHEATED STRUCTURES IS 60 INCHES; PROTECT FOUNDATION EXCAVATIONS FROM FROST; DO NOT PLACE CONCRETE ON FROZEN GROUND.
   b. FOUNDATION EXCAVATIONS SHALL BE KEPT FREE OF LOOSE MATERIAL, STANDING WATER, AND SHALL BE INSPECTED BEFORE THE PLACEMENT OF ANY CONCRETE.

B. SUBMITTALS:
1. PRIOR TO SUBMITTAL, THE CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS AND MAKE ANY CORRECTIONS REQUIRED. THE CONTRACTOR SHALL STAMP AND SIGN THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE ENGINEER.
2. THE CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR PROPRIETARY MATERIAL AND ITEMS, INCLUDING FORMING ACCESSORIES, ADMIXTURES, PATCHING COMPOUNDS, SEALANTS, WATERSTOPS, JOINT SYSTEMS, CURING COMPOUNDS, AND OTHERS IN AND FOR CONSTRUCTION.
3. THE FABRICATOR SHALL CLEARLY HIGHLIGHT/CLOUD ANY CHANGES MADE IN THE SHOP DRAWINGS WHICH DO NOT COMPLY WITH DESIGN DRAWINGS, ANY CHANGES MUST BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
4. CONTRACTOR TO SUBMIT THE FOLLOWING DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION OF SIGN.
   a. CONCRETE MIX DESIGNS
   b. ADDITIONAL SHOP DRAWINGS REQUESTED IN THE SPECIFICATIONS.
5. A COPY OF ALL SHOP DRAWINGS SHALL BE MAINTAINED ON SITE AT ALL TIMES.

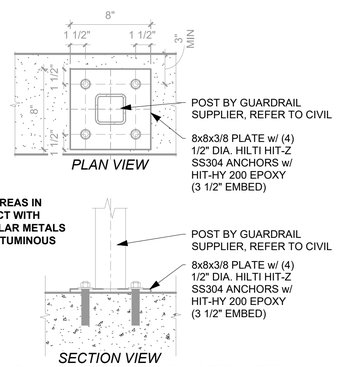
C. QUALITY CONTROL AND QUALITY ASSURANCE:
1. COORDINATE FOR ENGINEER OR OWNER'S INDEPENDENT TESTING AGENCY TO INSPECT AND APPROVE REINFORCING STEEL AND EMBEDS PRIOR TO ORDERING CONCRETE.
2. COORDINATE FOR OWNER'S INDEPENDENT TESTING AGENCY TO BE ON SITE AND PERFORM CONTINUOUS INSPECTION WHILE CONCRETE PLACEMENT IS OCCURING. PROVIDE NOTICE NO LESS THAN 48 HOURS IN ADVANCE OF CONRETE PLACEMENT.
3. COORINDATE WITH OWNER'S INDEPENDENT TESTING AGENCY TO SAMPLE CONCRETE AT TIME OF PLACEMENT IN ORDER TO PERFORM SLUMP, AIR, TEMPERATURE AND CASTING OF CYLINDERS.
4. THE SPECIAL INSPECTOR SHALL DETERMINE COMPLIANCE WITH THE SOIL REPORT FOR SITE PREPARATION, FILL PLACEMENT AND DENSITY TESTS.
5. ANY AND ALL WORK PERFORMED WITHOUT PROPER INSPECTION AND TESTING AS OUTLINED IN THIS SPECIFICATION WILL BE CONSIDERED UNAUTHORIZED WORK. ANY CORRECTIVE MEASURES REQUIRED OF THE UNAUTHORIZED WORK WILL BE AT CONTRACTORS OWN EXPENSE

RETAINING WALL DETAIL
NTS



CONTRACTOR NOTES:
1. TYPICAL AT ALL OPENINGS IN CONCRETE WALLS AND SLABS UNLESS INDICATED OTHERWISE ON PLANS.
2. LAP ALL REINFORCEMENT PER STRUCTURAL NOTES, TYPICAL UNO.
3. PROVIDE 3" CLEARANCE MINIMUM BETWEEN REINFORCEMENT AND OPENING.
4. DO NOT WELD REINFORCEMENT TO PIPE SLEEVES OR INSERTS.

TYPICAL CONCRETE PENETRATION REINFORCEMENT
NTS



TYPICAL GUARDRAIL BASEPLATE
NTS

PRELIMINARY NOT FOR CONSTRUCTION

ISG

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REVISION SCHEDULE

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CLIENT PROJECT NO.	-

TITLE

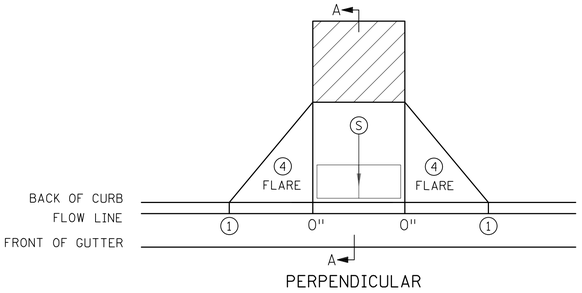
RETAINING WALL-FENCE PLAN AND DETAILS

SHEET

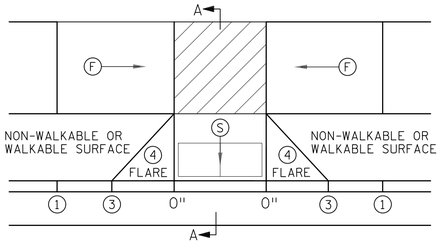
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OF 76

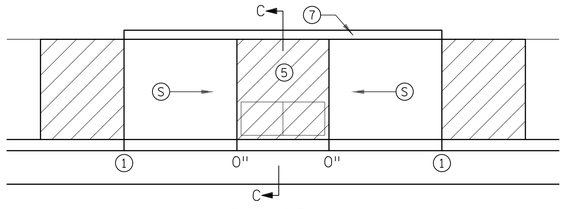
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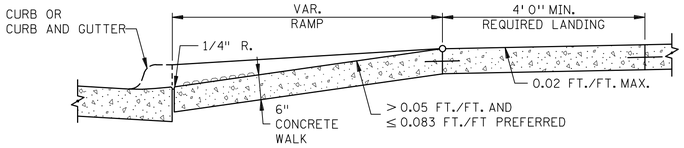
PERPENDICULAR



TIERED PERPENDICULAR

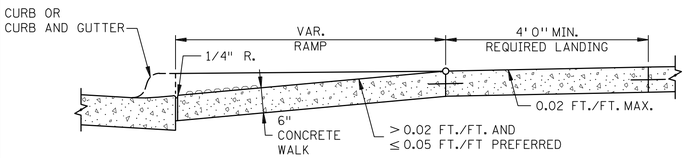


PARALLEL



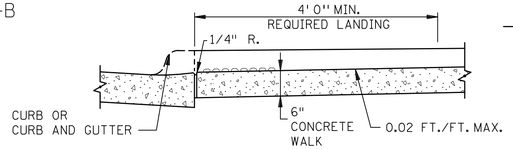
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



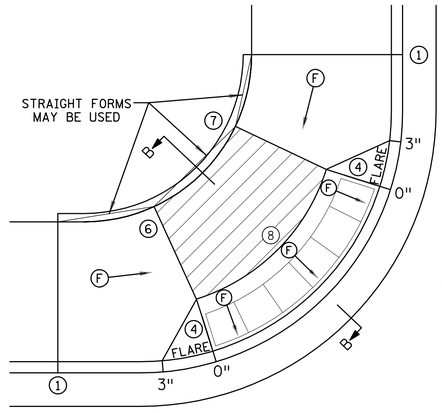
SECTION B-B

FAN

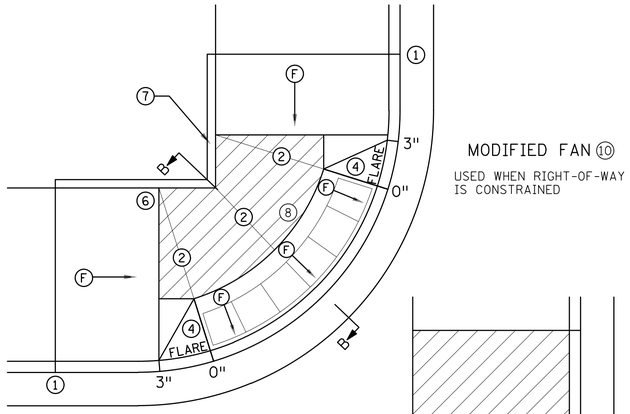


SECTION C-C

PARALLEL/DEPRESSED CORNER

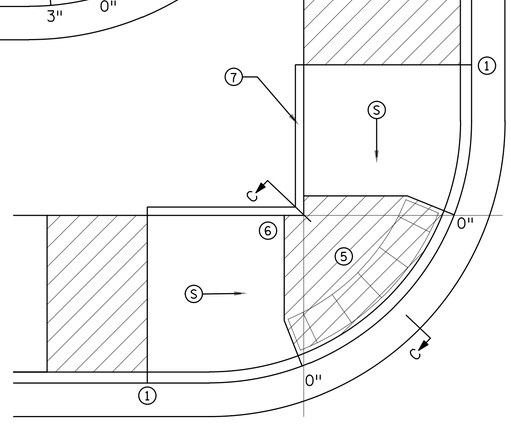


FAN (10)

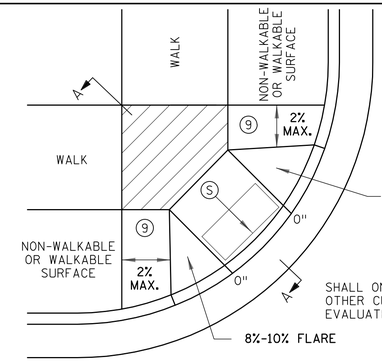


MODIFIED FAN (10)

USED WHEN RIGHT-OF-WAY IS CONSTRAINED



DEPRESSED CORNER



DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN (6) BELOW.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISIONS - PROSECUTION OF WORK (ADA).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK. DETECTABLE WARNING SHOULD BE 6" LESS THAN THE PAR/TRAIL WIDTH. ARC LENGTH OF RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

(1) MATCH FULL HEIGHT CURB.
(2) 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
(3) 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
(4) SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS, WHEN INITIAL LANDING IS AT FULL CURB HEIGHT.
(5) DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
(6) THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
(7) WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
(8) A 7' MIN TOP RADIUS GRADE BREAK REQUIRED TO BE CONSTRUCTIBLE.
(9) PAVE FULL WALK WIDTH.
(10) "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

REVISED:

APPROVED: 1-23-2017

STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 1 OF 6

PLOT DATE: 11/22/2021 4:28 PM

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PED RAMP STD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

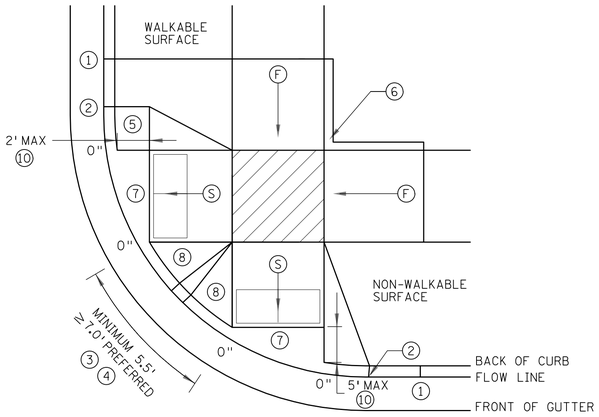
PEDESTRIAN CURB RAMP DETAILS 1

SHEET

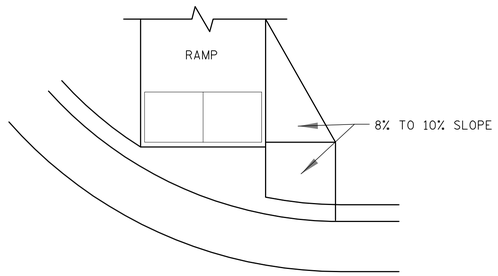
16

OF 76

PRELIMINARY NOT FOR CONSTRUCTION



COMBINED DIRECTIONAL ⑨



DIRECTIONAL RAMP WALKABLE FLARE

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATH AND THE ENTIRE PAR WIDTH OF THE WALK. DETECTABLE WARNING SHOULD BE 6" LESS THAN THE PAR/PATH WIDTH. ARC LENGTH OF RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHOULD BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

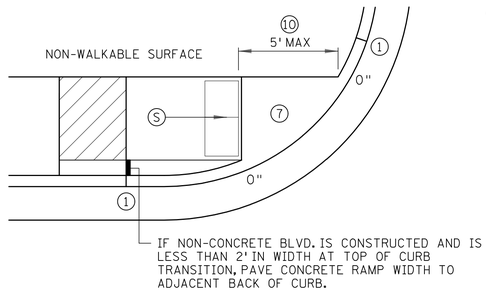
⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

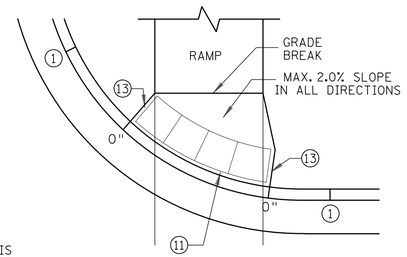
⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

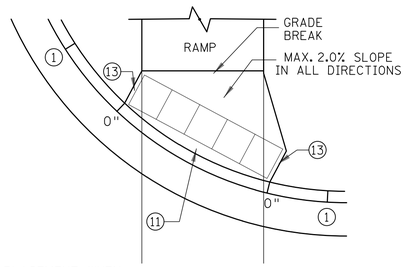
⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

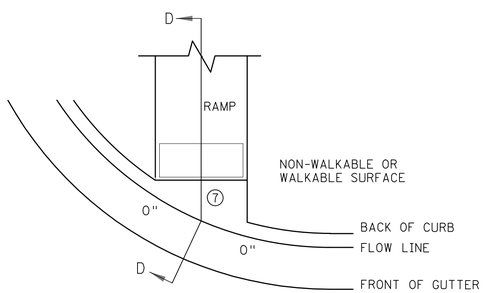


STANDARD ONE-WAY DIRECTIONAL ⑨

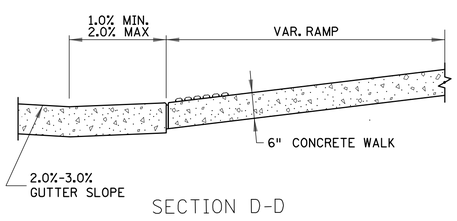


ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

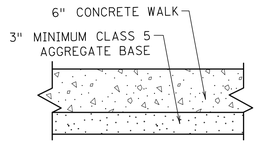




CURB FOR DIRECTIONAL RAMPS ⑭



SECTION D-D



TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

REVISED:

APPROVED: 1-23-2017

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 2 OF 6

PLOT DATE: 1/22/2021 4:28 PM

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PED RAMP STD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

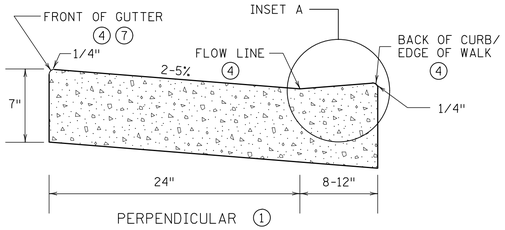
PEDESTRIAN CURB RAMP DETAILS 2

SHEET

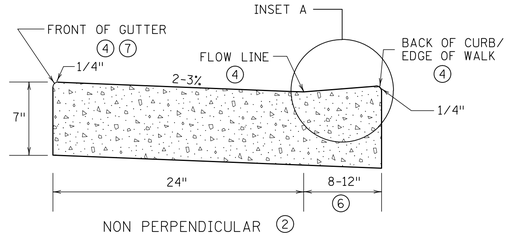
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PRELIMINARY NOT FOR CONSTRUCTION

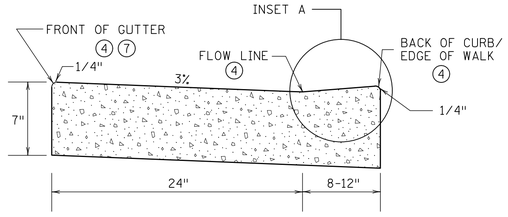


PERPENDICULAR (1)

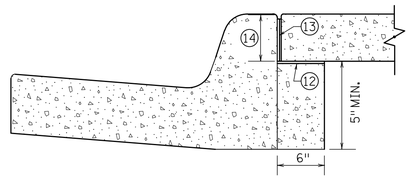


NON PERPENDICULAR (2)

PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL

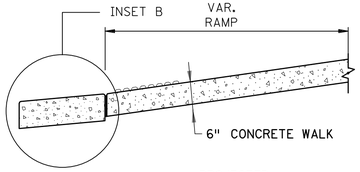


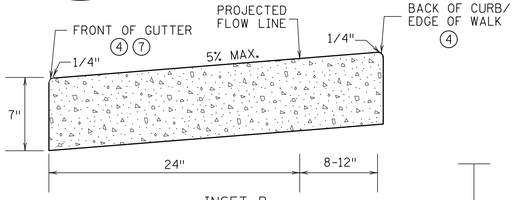
FOR CURB MACHINE PLACEMENT AROUND RADIUS (3)
(REGARDLESS OF RAMP TYPE)



OPTIONAL SILL CURB WHEN SIDEWALK IS AT BACK OF CURB

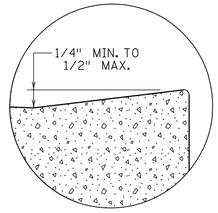
CONCRETE SILL TO BE USED ONLY WHEN SPECIFIED IN THE PLAN.



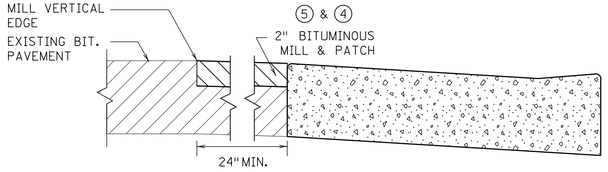


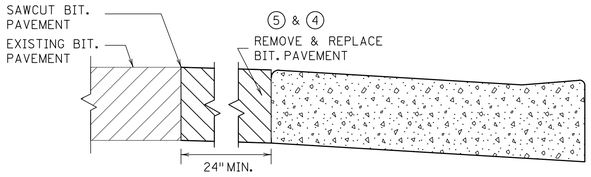
INSET B

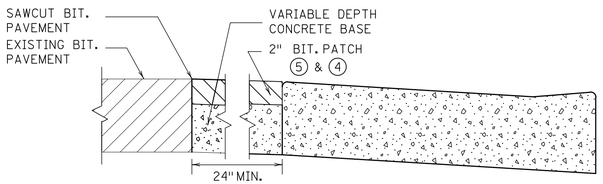
OUTFLOW GUTTER (8)



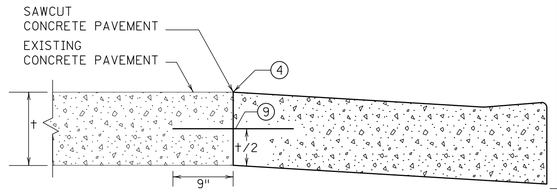
INSET A





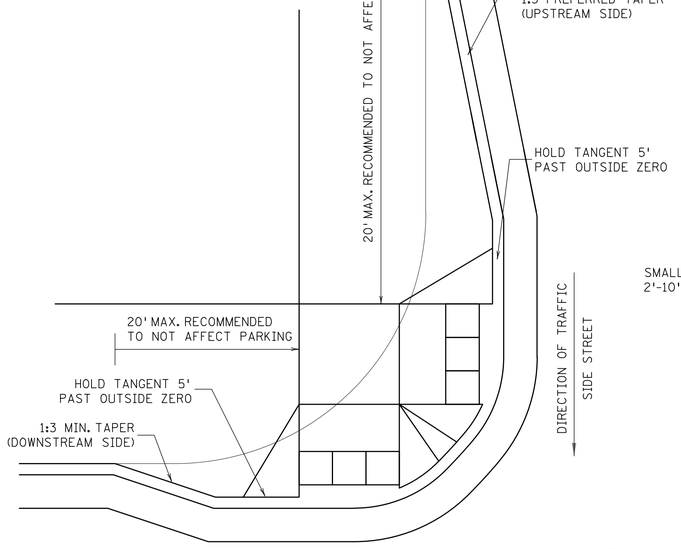


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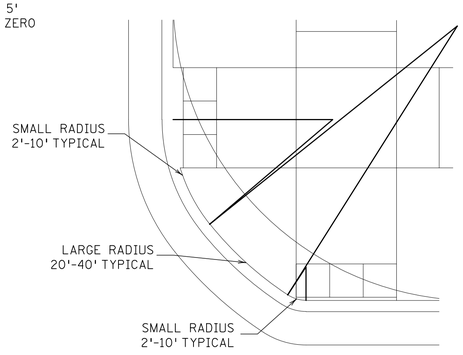
PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS



ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) (11)

DIRECTION OF TRAFFIC
MAIN STREET



COMBINED DIRECTIONAL (10)
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.

NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

(1) FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

(2) FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

(3) BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

(4) THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

(5) ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

(6) VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

(7) TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

(8) SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

(9) DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

(10) HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

(11) CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

(12) PLACE BOND BREAKER BETWEEN WALK AND TOP OF SILL.

(13) 1/2" PREFORMED JOINT FILLER PER MNDOT SPEC. 3702.

(14) DIMENSION TO BE SAME AS SIDEWALK THICKNESS, 4" MIN.

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

REVISED:

APPROVED: 1-23-2017

STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 3 OF 6

PLOT DATE: 11/22/2021 4:28 PM

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PED RAMP STD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

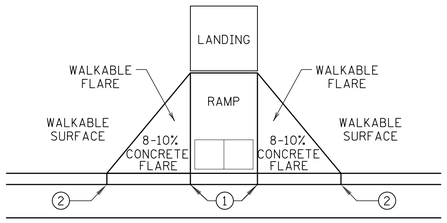
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PEDESTRIAN CURB RAMP DETAILS 3

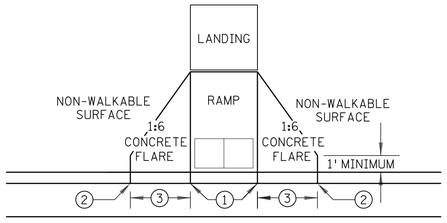
SHEET

18 OF 76

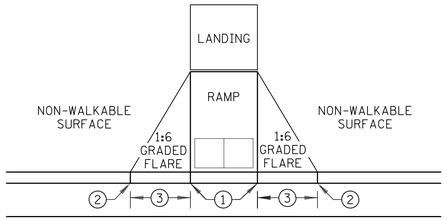
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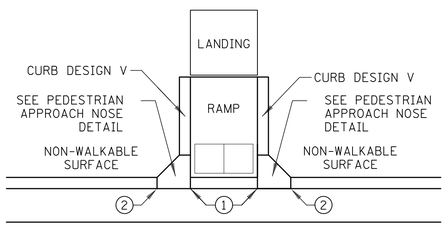
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

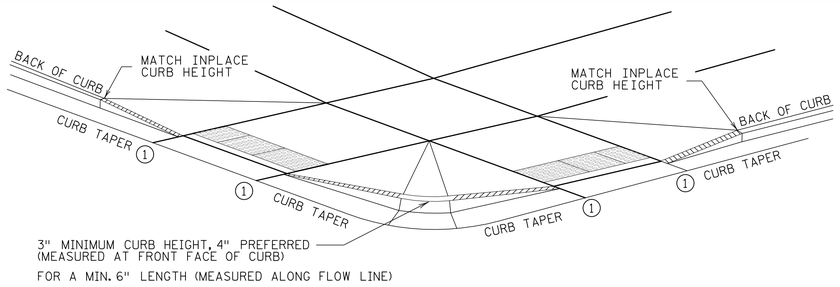


GRADED FLARES

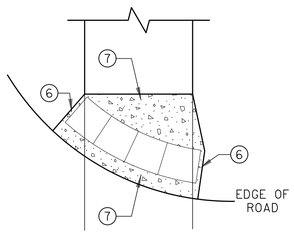


RETURNED CURB ⑤

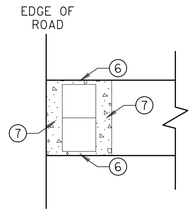
TYPICAL SIDE TREATMENT OPTIONS ④ ⑪



DETECTABLE EDGE WITH ⑧
CURB AND GUTTER

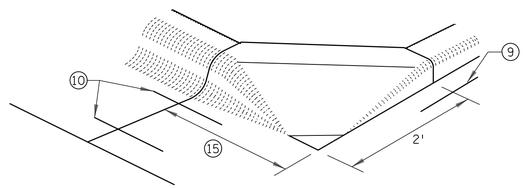


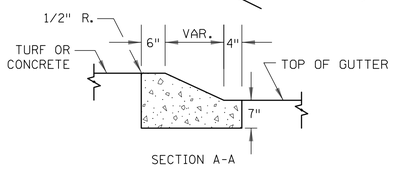
RADIAL DETECTABLE WARNING



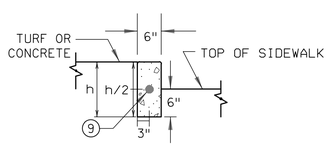
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

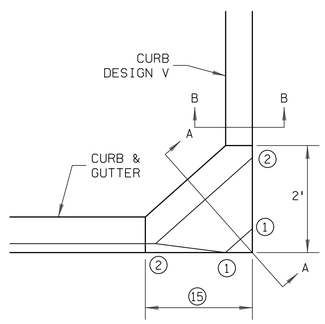




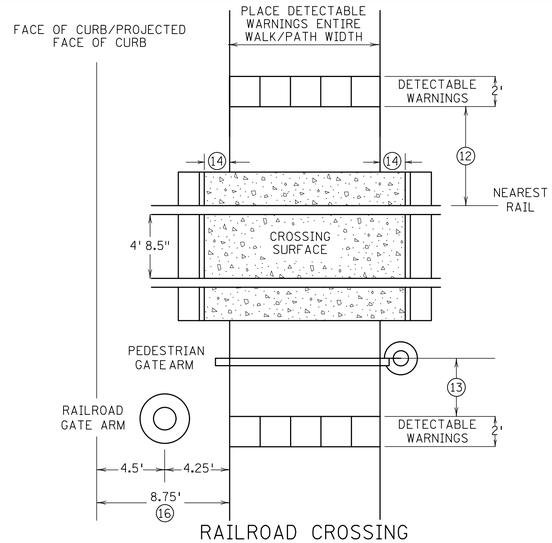
SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT.

② FULL CURB HEIGHT.

③ 2' FOR 4" HIGH CURB AND 3' FOR 6" HIGH CURB.

④ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

⑤ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑥ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑦ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑧ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑨ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑩ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑪ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE.

⑫ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑬ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑫.

⑭ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑮ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑯ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

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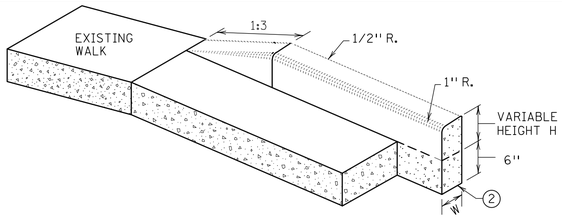
PEDESTRIAN CURB RAMP DETAILS 4

SHEET

19

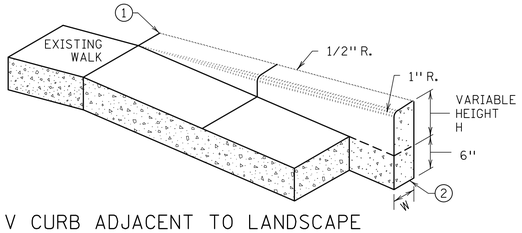
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PRELIMINARY NOT FOR CONSTRUCTION



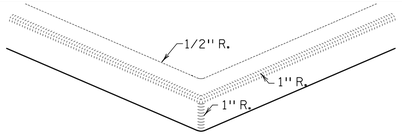
V CURB ADJACENT TO LANDSCAPE

CURB WITHIN SIDEWALK LIMITS

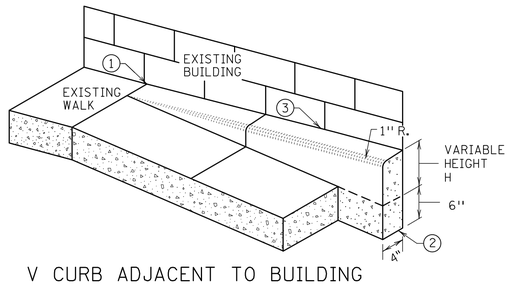


V CURB ADJACENT TO LANDSCAPE

CURB OUTSIDE SIDEWALK LIMITS

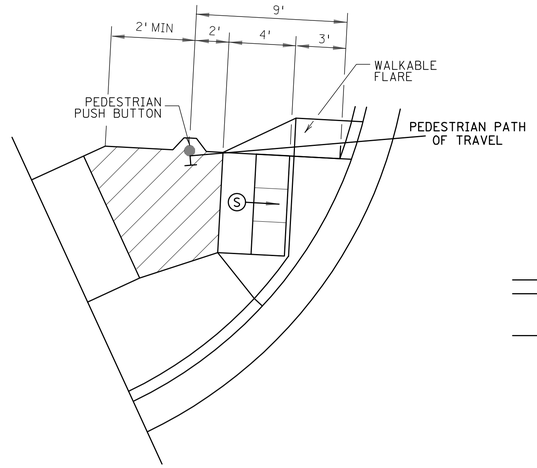


V CURB INTERSECTION



V CURB ADJACENT TO BUILDING OR BARRIER

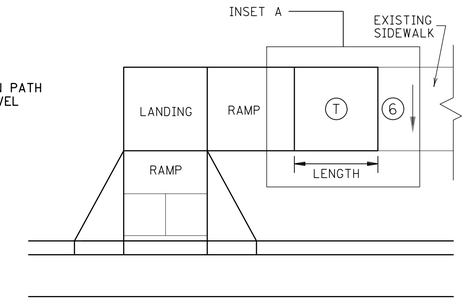
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"

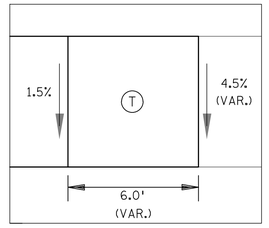


SEMI-DIRECTIONAL RAMP (3,4,9)

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

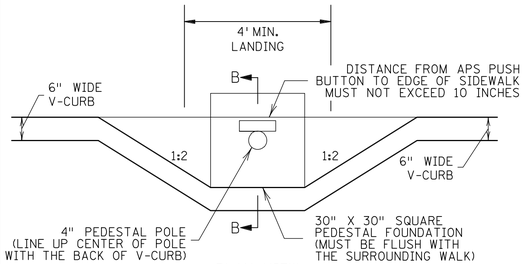
PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)



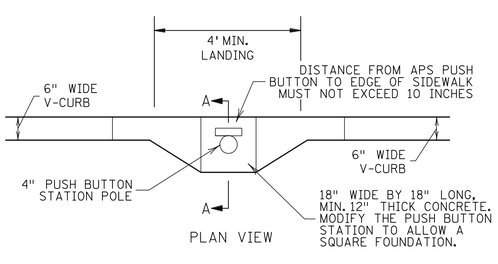


INSET A

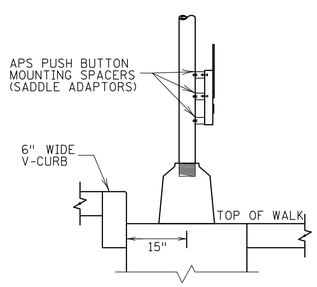
TRANSITION PANEL ④⑤



PLAN VIEW

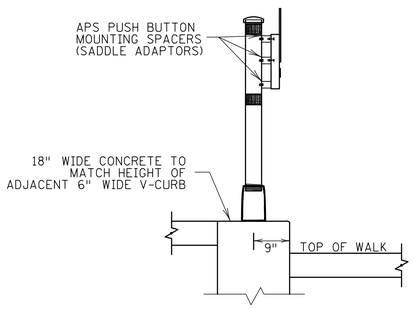


PLAN VIEW



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

1. END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
2. ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
3. EDGE BETWEEN NEW V CURB AND INPLACE STRUCTURE SHALL BE SEALED AND BOND BREAKER SHALL BE USED BETWEEN EXISTING STRUCTURE AND PLACED V-CURB.
4. THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
5. TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
6. EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- (T) TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

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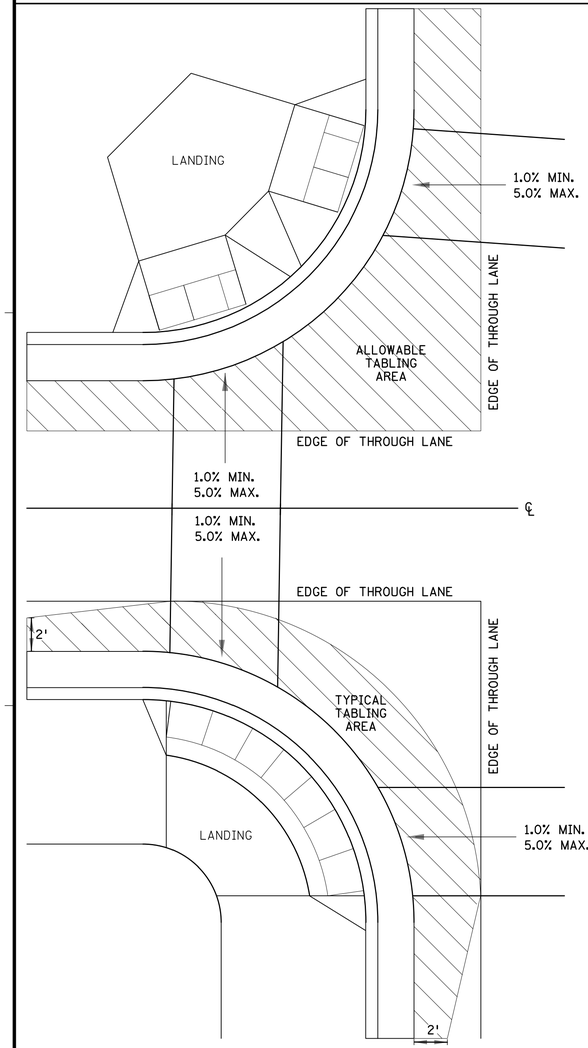
PEDESTRIAN CURB RAMP DETAILS 5

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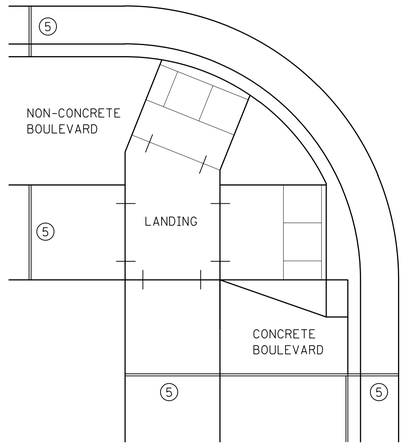
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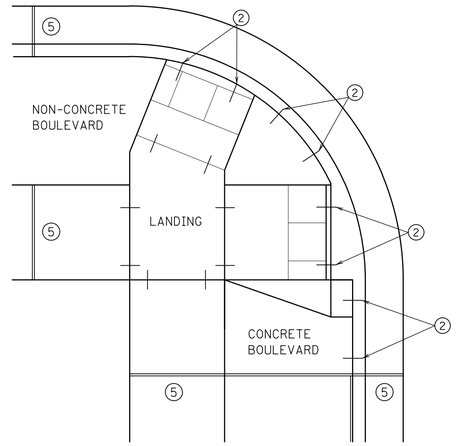
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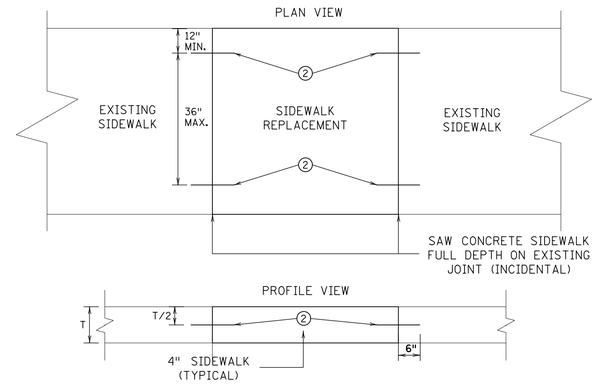
CURB LINE AND ROAD CROSSING ADJUSTMENTS



EXPANSION MATERIAL PLACEMENT FOR
CONCRETE AND BITUMINOUS ROADWAYS

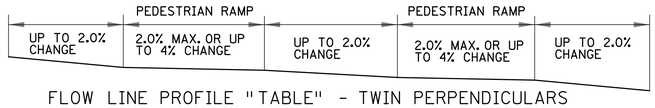


OPTIONAL CURB LINE REINFORCEMENT
PLACEMENT ON BITUMINOUS ROADWAYS ④

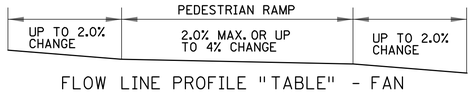


OPTIONAL SIDEWALK REINFORCEMENT

SIDEWALK REINFORCEMENT TO BE USED
ONLY WHEN SPECIFIED IN THE PLAN.



FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



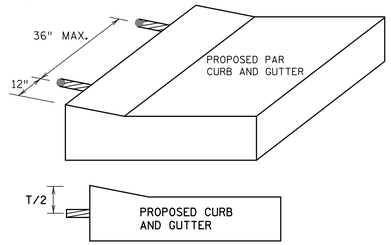
FLOW LINE PROFILE "TABLE" - FAN



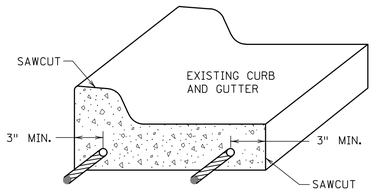
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



FLOW LINE PROFILE RAISE - FAN

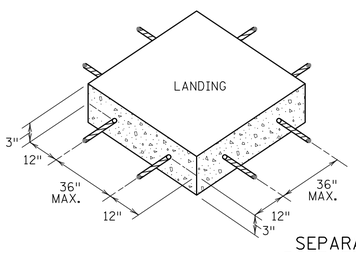


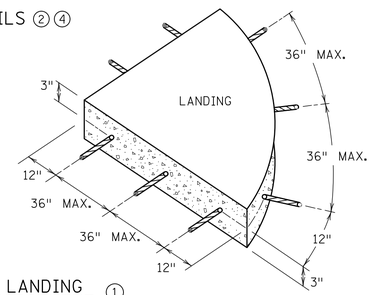
OPTIONAL CURB LINE REINFORCEMENT DETAILS ②④



FOR USE ON CURB RAMP RETROFITS

CURB AND GUTTER
REINFORCEMENT ③





SEPARATE LANDING
POUR REINFORCEMENT ①

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS
"TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

1. TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
2. DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS AT 36" MAXIMUM CENTER TO CENTER (EPOXY COATED). BARS TO BE ADJUSTED TO MATCH RAMP GRADE.
3. DRILL AND GROUT 2 - NO. 4 X 12" LONG REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS WITHIN RADIUS.
4. THIS OPTIONAL CURB LINE REINFORCEMENT DETAIL SHOULD ONLY BE USED ON BITUMINOUS ROADWAYS WHEN SPECIFIED IN THE PLAN.
5. 1/2 IN. PREFORMED JOINT FILLER MATERIAL PER MNDOT SPEC. 3702.

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

REVISED:

APPROVED: 1-23-2017

STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 6 OF 6

PLOT DATE: 1/22/2021 4:28 PM

ISG

NOTE:
THE CLARITY OF THESE PLANS DEPEND UPON COLOR COPIES. IF THIS TEXT DOES NOT APPEAR IN COLOR, THIS IS NOT AN ORIGINAL PLAN SET AND MAY RESULT IN MISINTERPRETATION.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PED RAMP STD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

PEDESTRIAN CURB RAMP DETAILS 6

SHEET

21 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

RESERVE AT AUTUMN WOODS

PLAT FILE NO.
C.R. DOC. NO.

AUTUMN WOODS DRIVE

AUTUMN WOODS

N LINE OF NE 1/4 OF NW 1/4 SEC. 27-T116N-R23W

N89°25'29"W 988.48

S6°49'27"W 41.98

L=63.90 R=596.24 Δ=6°08'27"

N89°16'38"W 193.28

N13°27'00"W 34.64

N89°25'29"W 86.81

N 1/4 CORNER SEC. 27-T116N-R23W

OUTLOT H

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT F

OUTLOT G

AUDUBON ROAD (C.S.A.H. NO. 17)

IRONWOOD BLVD.

SUGAR MAPLE DRIVE

TWP. HWY.

N13°30'56"W 517.21

L=265.17 R=1432.50 Δ=10°36'21"

N0°32'08"W 643.77 E LINE OF NE 1/4 OF NW 1/4 SEC. 27-T116N-R23W

S1°19'38"E 1401.87

N16°55'40"E 224.80

Δ=82°29'07" L=287.93 R=200.00

S80°35'13"E 77.23

Δ=27°08'26" L=142.11 R=300.00

S53°26'47"E 195.06

Δ=45°44'48" L=145.91 R=182.00

N89°49'27"E 81.34

L=168.79 R=182.00 Δ=53°07'10"

N46°37'43"W L=105.39 R=182.00 Δ=33°10'53"

N13°27'00"W 152.06

L=276.00 R=2750.00 Δ=5°45'02"

Δ=5°53'47" L=283.00 R=2750.00

S07°41'58"E 70.35

S82°18'02"W 190.00

S82°18'02"W 439.31

L=158.77 R=182.00 Δ=49°59'03"

S32°16'59"W 143.08

L=449.88 R=250.00 Δ=103°06'16"

N86°10'36"W 30.70

L=195.38 R=182.00 Δ=61°30'25"

L=333.98 R=2750.00 Δ=6°57'30"

L=340.98 R=2750.00 Δ=7°06'15"

L=184.51 R=182.00 Δ=58°05'05"

N57°29'22"E 152.93

S LINE OF NE 1/4 OF NW 1/4 SEC. 27-T116N-R23W

978.98

S89°12'05"E 1507.37

EXCEPTION

AUTUMN WOODS EAST

ASHWOOD BOULEVARD

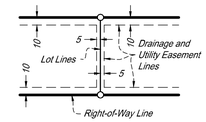
AUTUMN WOODS EAST 2ND ADDITION

AUTUMN WOODS 2ND ADDITION

CYPRESS CREEK EAST

NW 1/4

Drainage and Utility Easements are shown thus:



Being 5 feet in width and adjoining lot lines and being 10 feet in width and adjoining right - of - way lines and rear lot lines, unless otherwise indicated on the plat.

N

0 80 160

SCALE IN FEET

LEGEND

- ● Iron Monument Found
- ⊗ Indicates 1/2" Dia. x 18" Long Solid Iron Pipe Set With Plastic Cap Marked By ISG, License No. 45817 To Be Set Before Time of Recording.
- ○ Indicates 1/2" Dia. x 18" Long Solid Iron Pipe Set With Plastic Cap Marked By ISG, License No. 45817 To Be Set Within One Year of Recording.
- ▲ Set PK Nail

BEARING NOTE:
The orientation of this bearing system is based on the north line of NE 1/4 of Sec. 33, Twp. 110, Rge 21. Said line bears South 89 degrees 59 minutes 23 seconds West.

ISG

JOB # xx DATE: xx

SHEET 2 OF 6 SHEETS

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT LOCATION
PROJECT/SITE NAME: RESERVE AT AUTUMN WOODS
CITY/TOWNSHIP: CHASKA
COUNTY/STATE: HENNEPIN CO, MINNESOTA
ZIP CODE: 55318
LATITUDE/LONGITUDE: 44.832528, -93.575482
SECTION, TOWNSHIP, RANGE: S 27, T 116, R 23

PROJECT DESCRIPTION
THE PROJECT INCLUDES CONSTRUCTION OF A LARGE RESIDENTIAL DEVLEOPMENT WITH VARIOUS STYLE HOMES AND SUPPORTING ROADS, DRIVEWAYS, SIDEWALKS, AND UTILITIES. THERE WILL ALSO BE SIX STORMWATER BASINS CONSTRUCTED WITHIN THE DEVELOPMENT.

TENTATIVE CONSTRUCTION SCHEDULE (OPERATOR SHOULD PROVIDE ESTIMATED CONSTRUCTION SCHEDULE TO THE OWNER'S REPRESENTATIVE)

CONSTRUCTION ACTIVITIES:	ESTIMATED DATES OF SOIL DISTURBANCE ACTIVITIES:
CLEARING AND GRUBBING OPERATIONS, GRADING, POND	APRIL - AUGUST 2022
CURB & GUTTER/SIDEWALK	AUGUST – OCTOBER 2022
PAVING	SEPTEMBER – OCTOBER 2022
LANDSCAPING, FINAL TURF, MISC.	APRIL –AUGUST 2023

PRE-CONSTRUCTION IMPERVIOUS SURFACE AND DISTURBED AREA CALCULATIONS
TOTAL AREA TO BE DISTURBED = 34.22 ACRES MINIMUM AREA REQUIRING MPCA PERMIT = 1.00 ACRES
"AN MPCA NPDES PERMIT IS REQUIRED FOR THIS PROJECT"
IMPERVIOUS AREA: PRE-CONSTRUCTION = 0.60 ACRES
POST-CONSTRUCTION = 12.09 ACRES
NET INCREASE OF IMPERVIOUS AREA = 11.49 ACRES

MINIMUM NEW IMPERVIOUS SURFACE AREA CREATED REQUIRING PERMANENT STORMWATER MANAGEMENT = 5,000 SF (BASED ON WATERSHED REQUIREMENTS)

CONTACT INFORMATION/RESPONSIBLE PARTIES
THE OWNER OWNS THE LAND, ADJACENT ROADS, AND EASEMENT AREAS ASSOCIATED WITH THE PROJECT. THE OWNER IS THE OWNER CO-PERMITTEE APPLYING FOR PERMIT COVERAGE AND WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL TERMS AND CONDITIONS OF THE PERMIT INCLUDING DEVELOPING THIS SWPPP AND THE LONG-TERM MAINTENANCE PLAN OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM FOR THIS PROJECT (IF APPLICABLE). THE OWNER WILL ENSURE THAT THE DESCRIBED WORK IN THE SWPPP IS BEING COMPLETED BY THE OPERATOR PERMITTEE.

OWNER/PERMITTEE: LENNAR (JOSH METZER, LAND ENTITLEMENT MANAGER)
10300 36TH AVE NORTH, SUITE 600
PLYMOUTH, MN 55446
952.249.3068/JOSH.METZER@LENNAR.COM

THE PRIMARY CONTRACTOR WILL ENTER INTO A CONTRACT WITH THE OWNER TO COMPLETE THE REQUIRED WORK FOR THIS PROJECT. THE PRIMARY CONTRACTOR WILL BECOME (UNDER CONTRACT) THE OPERATOR CO-PERMITTEE ON THE NPDES PERMIT (THROUGH EXECUTION OF A NPDES PERMIT MODIFICATION FORM), AND THEREBY AGREE TO IMPLEMENT THIS SWPPP IN COOPERATION WITH THE OWNER. THE OPERATOR IS RESPONSIBLE FOR IDENTIFYING AN EROSION CONTROL SUPERVISOR PRIOR TO STARTING CONSTRUCTION (REFER TO SWPPP AMENDMENT SECTION). THE NPDES PERMIT MODIFICATION FORM SHALL BE SUBMITTED TO THE MPCA AFTER THE PROJECT IS AWARDED TO THE OPERATION, PRIOR TO LETTING THE PROJECT.

THE OPERATOR WILL ENSURE THAT INDIVIDUALS OVERSEEING OR IMPLEMENTING THE SWPPP HAVE BEEN PROPERLY TRAINED AND THAT CERTIFICATIONS WILL BE MADE AVAILABLE UPON REQUEST. THIS INCLUDES ANY SUB-CONTRACTORS THAT THE OPERATOR EMPLOYS UNDER SEPARATE CONTRACT. THE OPERATOR WILL PROVIDE THE CONTACT INFORMATION FOR THE EROSION CONTROL SUPERVISOR, SITE SUPERINTENDENT/FOREMAN, AND BMP INSTALLERS. THE EROSION CONTROL SUPERVISOR SHALL BE A RESPONSIBLE EMPLOYEE OF THE PRIME CONTRACTOR AND/OR DULY AUTHORIZED BY THE PRIME CONTRACTOR TO REPRESENT THE PRIME CONTRACTOR ON ALL MATTERS PERTAINING TO THE NPDES CONSTRUCTION STORMWATER PERMIT COMPLIANCE. THE EROSION CONTROL SUPERVISOR SHALL HAVE AUTHORITY OVER ALL OPERATOR ACTIVITIES WHICH INFLUENCE NPDES PERMIT COMPLIANCE, INCLUDING GRADING, EXCAVATION, BRIDGE CONSTRUCTION, CULVERT INSTALLATION, UTILITY WORK, CLEARING/GRUBBING, DEWATERING, AND ANY OTHER OPERATION THAT INCREASES THE EROSION POTENTIAL ON THE PROJECT.

THE OPERATOR WILL PERFORM A PRECONSTRUCTION SITE VISIT TO ADDRESS ANY AREAS OF CONCERN PERTAINING TO ENVIRONMENTAL COMPLIANCE. THE OPERATOR WILL IMPLEMENT AND MAINTAIN BMPS FOR THE DURATION OF CONSTRUCTION PROJECT. THE OPERATOR WILL COMPLETE THE REQUIRED SITE INSPECTIONS, AND IS RESPONSIBLE FOR SECTION 3-4, 6-22, 24, AND APPLICABLE PARTS OF 23, TO REMAIN IN COMPLIANCE WITH NPDES PERMIT.

OPERATOR/PERMITTEE: (TO BE DETERMINED AND IDENTIFIED THROUGH TRANSFER OF NPDES-CSW PERMIT)

ISG INC. HAS BEEN CONTRACTED BY THE OWNER TO DEVELOP THE SWPPP PLAN FOR THIS PROJECT. THIS SWPPP WAS PREPARED BY AN INDIVIDUAL THAT HAS BEEN PROPERLY TRAINED IN ACCORDANCE TO SECTION 21 OF THE NPDES PERMIT (CERTIFICATION CARDS ARE AVAILABLE UPON REQUEST). ISG INC. WILL OFFER GUIDANCE FOR COMPLIANCE WITH THE NPDES PERMIT BEFORE, DURING, AND AFTER CONSTRUCTION OF THE PROJECT.

SWPPP DESIGNER:
ISG INC. (EMILY SHAW)
7900 INTERNATIONAL DR., SUITE 550
MINNEAPOLIS, MN 55425
952-426-0699/EMILY.SHAW@IS-GRP.COM

PERMENANT STORMWATER MANAGEMENT SYSTEM:
ISG INC. (EMILY SHAW)
7900 INTERNATIONAL DR., SUITE 550
MINNEAPOLIS, MN 55416
952-426-0699/EMILY.SHAW@IS-GRP.COM

AGENCY CONTACTS

AGENCY	PERMIT	NAME	PHONE NUMBER/E-MAIL
MPCA (EMERGENCY)	N/A	STATE DUTY OFFICER:	1-800-422-0798
MPCA	NPDES-CSW #MNR100001	MATT KING	218-846-8103/MATTHEW.KING@STATE.MN.US
WATERSHED DISTRICT	STORMWATER MANAGEMENT	TERRY JEFFERY	952-807-6885/TJEFFERY@RPBCWD.ORG

PERMANENT STORMWATER TREATMENT SYSTEMS
THE NPDES PERMANENT WATER QUALITY VOLUME (SECTION 15) FROM THE NET NEW IMPERVIOUS SURFACES OF THE PROJECT IS PROVIDED IN THE PROPOSED INFILTRATION BASINS AND WET SEDIMENTATION BASIN. HYDROLOGIC AND WATER QUALITY MODELING DATA AND THE CONTAMINATION CHECKLIST IS AVAILABLE UPON REQUEST. THE SITE IS ABLE TO MEET THE FULL VOLUME REDUCTION REQUIREMENT. INFILTRATION RATES WERE DETERMINED BY THE FIELD MEASURED INFILTRATION RATE AND DIVIDED BY 2.

LOCATION OF SWPPP COMPONENTS

DESCRIPTION	TITLE	LOCATION (SHEET NAME)
SWPPP NARRATIVE	SWPPP NARRATIVE	SWPPP GENERAL INFORMATION, DETAILS AND NOTES
SITE CONDITIONS	SWPPP NARRATIVE	SWPPP GENERAL INFORMATION, DETAILS AND NOTES
SITE MAPS (SOILS, WATER RESOURCES, POTENTIAL POLLUTANT GENERATING ACTIVITIES)	SWPPP MAP, SWPPP NARRATIVE	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
CONSTRUCTION PHASING/STAGING, BUFFERS, & AREAS NOT TO BE DISTURBED	SWPPP NARRATIVE	SWPPP GENERAL INFORMATION, DETAILS AND NOTES
DIRECTION OF SURFACE WATER FLOW (PRE- & POST- CONSTRUCTION	DRAINAGE PLAN	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
IMPERVIOUS SURFACES	CONSTRUCTION PLAN & PROFILE	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
TEMPORARY EROSION & SEDIMENT CONTROL BMPS FOR STEEP SLOPES (3:1), DNR FISH EXCLUSION "WORK IN WATER RESTRICTIONS" REFER TO SWPPP	TEMPORARY EROSION AND SEDIMENT CONTROL PLAN, SWPPP NARRATIVE	SWPPP GENERAL INFORMATION, DETAILS AND NOTES
PERMANENT EROSION PREVENTION BMPS	TURF ESTABLISHMENT PLAN, SWPPP NARRATIVE	STORMWATER POLLUTION PREVENTION PLAN (SWPPP); SWPPP GENERAL INFORMATION, DETAILS AND NOTES; TURF RESTORATION PLAN
STORM SEWER	DRAINAGE PLAN	STORMWATER POLLUTION PREVENTION PLAN (SWPPP); OVERALL UTILITY PLAN
GRADING	GRADING PLAN	OVERALL GRADING PLAN, NOTES AND EARTHWORK CALCULATIONS
ESTIMATED BMP QUANTITIES	ESTIMATED QUANTITIES	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
BMP DETAILS/SPECIFICATIONS	MISC. DETAILS, SWPPP NARRATIVE	SWPPP GENERAL INFORMATION, DETAILS AND NOTES
HYDROLOGIC/WATER QUALITY MODELING		AVAILABLE UPON REQUEST

EXISTING SITE CONDITIONS, SOILS, & WATER RESOURCES
SOILS AND NATIVE TOPSOIL: NATIVE TOPSOIL WILL BE STRIPPED AND STOCKPILED FOR FINAL GRADING OPERATIONS, WHERE INDICATED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. METHODS AND EQUIPMENT TO MINIMIZE SOIL COMPACTION (IN PROPOSED INFILTRATION AREAS, DRIP LINE OF TREES TO BE PRESERVED, ETC.) SHALL BE DETERMINED BY THE OPERATOR'S SWPPP AMENDMENT. TRACKED VEHICLES ARE PREFERRED AND WHEELED VEHICLES ARE DISCOURAGED IN THESE AREAS. THE FOLLOWING USDA-NRCS MAPPED SOILS ARE SHOWN AS "NOT HIGHLY ERODIBLE", "MODERATELY ERODED", AND "ERODED" IN THE COUNTY SOIL SURVEY MAP.

USDA-NRCS MAPPED SOIL SURVEY UNIT NO., NAME, TEXTURE, SLOPE PERCENTAGE	PERCENTAGE OF PROJECT AREA	APPROXIMATE PARTICLE SIZE RANGE (MM) SAND (0.05-2.00+)	SILT (0.002-0.05)	CLAY (<0.002)
EX- ESSEXVILLE SANDY LOAM	2	50-70%	0-50%	15-20%
GL – GLENCOE CLAY LOAM, 0-1% SLOPES	16	26-52%	59-74%	26-41%
HM – HAMEL LOAM, 0-2% SLOPES	5	30-60%	74-92%	8-26%
KB – KILKENNY-LESTER LOAM, 2-6% SLOPES	40	30-60%	74-92%	8-26%
KB2 – LESTER-KILKENNY LOAM, 2-6% SLOPES, ERODED	16	30-60%	74-92%	8-26%
KC – LESTER-KILKENNY LOAMS, 6-12% SLOPES	1	30-60%	74-92%	8-26%
KC2 - LESTER-KILKENNY COMPLEX, 6-12% SLOPES, MODERATELY ERODED	16	NA	NA	NA
KF – LESTER-KILKENNY COMPLEX, 22-40% SLOPES	3	NA	NA	NA
MK – MUSKEGO HOUGHTON SOILS, 0-1% SLOPES	1	NA	NA	NA

DESCRIPTION OF RECEIVING WATERS (LOCATED WITHIN 1-MILE): STORMWATER FROM THIS PROJECT WILL BE CONVEYED INTO SEVERAL CONSTRUCTED STORMWATER PONDS. THE PROJECT HAS THREE SEPARATE DISCHARGE POINTS. ONE DISCHARGE POINT IS THROUGH THE SOUTHERN WETLAND. THE SECOND DISCHARGE POINT IS TO THE NORTH THROUGH THE NORTH WETLAND AND THEN INTO LAKE HAZELTINE. THE THIRD IS THE SMALLEST DISCHARGE AMOUNT AND GOES UNDER AUDUBON RD TO AN OFFSITE STORMWATER POND. HYDROLOGIC AND WATER QUALITY MODELING DATA IS AVAILABLE UPON REQUEST.

DESCRIPTION OF IMPAIRED WATERS OR WATER SUBJECT TO TMDLS: A SPECIAL AND IMPAIRED WATERS SEARCH WAS COMPLETED USING THE MPCA SEARCH ENGINE (HTTP://PCA-GIS02.PCA.STATE.MN.US/CSWINDEX.HTML) ON 7/6/2021. BASED ON THIS REVIEW, THE FOLLOWING SPECIAL OR IMPAIRED WATERS (WITH CONSTRUCTION RELATED IMPAIRMENTS) ARE LOCATED WITHIN ONE MILE OF, AND DOWNSTREAM OF ANY PROJECT DISCHARGE POINTS: HAZELTINE LAKE IS IMPAIRED (NUTRIENTS) AND BLUFF CREEK IS IMPAIRED (FISHES BIOASSESSMENTS, TURBIDITY), THEREFORE SECTION 23 REQUIREMENTS APPLY TO THIS PROJECT.

DISCHARGES TO SPECIAL (PROHIBITED, RESTRICTED, OTHER) OR IMPAIRED WATERS (SECTION 23)
ALL REQUIREMENTS IN SECTION 23 ARE IN ADDITION TO BMPS ALREADY SPECIFIED IN THE PERMIT. WHERE PROVISIONS OF SECTION 23 CONFLICT WITH REQUIREMENTS ELSEWHERE IN THE PERMIT, THE PROVISIONS IN SECTION 23 TAKE PRECEDENCE. ALL BMPS USED TO COMPLY WITH THESE ITEMS MUST BE DOCUMENTED IN THE SWPPP FOR THE PROJECT.

23.9 EXPOSED SOILS: OPERATOR SHALL STABILIZE ALL EXPOSED SOIL AREAS WITHIN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

23.10 TEMPORARY BASIN: OPERATOR SHALL ADHERE TO THE REQUIREMENTS DESCRIBED IN ITEM 14.1-14.10 OF THE NPDES CONSTRUCTION PERMIT FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED.

23.11 BUFFER ZONE: AN UNDISTURBED BUFFER ZONE OF NOT LESS THAN 100 LINEAR FEET FROM THE SPECIAL WATER (NOT INCLUDING TRIBUTARIES) SHALL BE MAINTAINED AT ALL TIMES. EXCEPTIONS FROM THIS REQUIREMENT FOR AREAS, SUCH AS WATER CROSSINGS, LIMITED WATER ACCESS AND RESTORATION OF THE BUFFER ARE ALLOWED IF THE PERMITTEE FULLY DOCUMENTS IN THE SWPPP THE CIRCUMSTANCES AND REASONS THAT THE BUFFER ENCROACHMENT IS NECESSARY. REPLACEMENT OF EXISTING IMPERVIOUS SURFACE WITHIN THE BUFFER IS ALLOWED UNDER THIS PERMIT. ALL POTENTIAL WATER QUALITY, SCENIC AND OTHER ENVIRONMENTAL IMPACTS OF THESE EXCEPTIONS MUST BE MINIMIZED BY THE USE OF ADDITIONAL OR REDUNDANT BMPS AND DOCUMENTED IN THE SWPPP FOR THE PROJECT.

23.12 TEMPERATURE CONTROLS: THE PERMANENT STORMWATER MANAGEMENT SYSTEM MUST BE DESIGNED SUCH THAT THE DISCHARGE FROM THE PROJECT WILL MINIMIZE ANY INCREASE IN THE TEMPERATURE OF TROUT STREAM RECEIVING WATERS RESULTING FROM THE 1-AND 2-YEAR 24-HOUR PRECIPITATION EVENTS. THIS INCLUDES ALL TRIBUTARIES OF DESIGNATED TROUT STREAMS WITHIN THE PLSS SECTION THAT THE TROUT STREAM IS LOCATED. ALL STORMWATER ROUTED TO THE STORMWATER SYSTEM MUST DISCHARGE WITHIN 24 HOURS. PROJECTS THAT DISCHARGE TO TROUT STREAMS MUST MINIMIZE THE IMPACT USING ONE OR MORE OF THE FOLLOWING MEASURES, IN ORDER OF PREFERENCE:
A. PROVIDE STORMWATER INFILTRATION OR OTHER VOLUME REDUCTION PRACTICES AS DESCRIBED IN ITEM 15.4-15.5.
B. PROVIDE STORMWATER FILTRATION AS DESCRIBED IN ITEM 17.1-17.11.
C. MINIMIZE THE DISCHARGE FROM CONNECTED IMPERVIOUS SURFACES BY DISCHARGING TO VEGETATED AREAS, OR GRASS SWALES, AND THROUGH THE USE OF OTHER NON-STRUCTURAL CONTROLS.
D. IF A DRY POND IS USED, THE DESIGN MUST INCLUDE AN APPROPRIATE COMBINATION OR MEASURES SUCH AS SHADING, VEGETATED SWALE DISCHARGES OR CONSTRUCTD WETLAND TREATMENT CELLS THAT LIMIT TEMPERATURE INCREASES.
E. OTHER METHODS THAT MINIMIZE ANY INCREASE IN THE TEMPERATURE OF THE TROUT STREAM.

12.13 INSPECTIONS: PERMITTEES MUST CONDUCT ROUTINE SITE INSPECTIONS ONCE EVERY THREE (3) DAYS AS DESCRIBED IN ITEM 11.2.

23.14 TREATMENT: IF DISCHARGES TO PROHIBITED WATERS CANNOT PROVIDE VOLUME REDUCTION EQUAL TO ONE (1) INCH TIMES THE NET INCREASE OF IMPERVIOUS SURFACES AS REQUIRED IN ITEM 15.4 AND 15.5, PERMITTEES MUST DEVELOP A PERMANENT STORMWATER TREATMENT PLAN THAT WILL RESULT IN NO NET INCREASE OF TSS OR PHOSPHORUS TO THE PROHIBITED WATER. PERMITTEES MUST KEEP THE PLAN IN THE SWPPP FOR THE PROJECT.

POTENTIAL FOR SEDIMENT AND/OR OTHER POLLUTANT(S) DISCHARGING FROM THE PROJECT SITE
THE TEMPORARY EROSION AND SEDIMENT CONTROL BMPS IN THIS SWPPP HAVE BEEN DESIGNED TO MINIMIZE THE POTENTIAL OF SEDIMENTS DISCHARGING OFF-SITE FROM A 0.5 INCH RAINFALL WITHIN A 24 HOUR PERIOD. THE NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATE FOR THE PROJECT LOCATION WAS REVIEWED AND USED FOR ANTICIPATED INSPECTION FREQUENCY, BMP DESIGN, AND ESTIMATING CONSTRUCTION ACTIVITIES IN THIS SWPPP. ATLAS 14 RESULTS DO NOT NECESSARILY REFLECT ANY DESIGN CRITERIA IN THE PERMANENT STORMWATER MANAGEMENT SYSTEM.

ROUTINE INSPECTION AND BMP MAINTENANCE BY THE OPERATOR IS CRUCIAL IN ENSURING THE FUNCTIONALITY OF EACH BMP. STEEP SLOPES AND OTHER ENVIRONMENTALLY SENSITIVE AREAS THAT ARE AT A HIGHER RISK OF SEDIMENTATION ARE DEFINED IN THIS SWPPP (IF APPLICABLE).

CONSTRUCTION PHASING/STAGING, BUFFERS, & AREAS NOT TO BE DISTURBED
THERE IS NO CONSTRUCTION PHASING OR STAGING DEFINED BY THE OWNER FOR THIS PROJECT. THE SCHEDULE FOR INSTALLING TEMPORARY BMPS SHALL BE INCORPORATED INTO THE OPERATOR'S WEEKLY SCHEDULE FOR EACH CONSTRUCTION STAGE AND PRESENTED TO THE OWNER'S REPRESENTATIVE (PER MNDOT SPEC 1717.D). THE PROJECT'S CONSTRUCTION PHASING AND STAGING IS DEFINED BY THE "CONSTRUCTION STAGING & TRAFFIC CONTROL PLAN" AND PROJECT SPECIFICATIONS.

ENVIRONMENTALLY SENSITIVE AREAS
STEEP SLOPES: EXISTING AND PROPOSED SLOPES 1 IN 3 (33.33%) AND STEEPER THAT ARE PROPOSED TO BE DISTURBED ARE ILLUSTRATED ON THE PLAN SHEETS. STEEP SLOPES MAY BE TEMPORARILY CREATED DURING GRADING OPERATIONS IF NECESSARY, AT WHICH TIME TEMPORARY BMPS MUST BE IMPLEMENTED BY THE OPERATOR (THROUGH AN APPROVED SWPPP AMENDMENT) WITHIN 7 DAYS OF NO LONGER WORKING THE STEEP SLOPE.

CONTAMINATED PROPERTIES: THE MPCA'S "WHAT'S IN MY NEIGHBORHOOD" DATABASE WAS REVIEWED ON 7/6/2021 (WWW.PCA.STATE.MN.US/DATA/WHATS-MY-NEIGHBORHOOD) AND A CONTAMINATION ASSESSMENT WAS PERFORMED (AVAILABLE UPON REQUEST). THE RESULTS OF THIS REVIEW SHOW NO KNOWN CONTAMINATED PROPERTIES OR LEAK SOURCES LOCATED WITHIN AND ADJACENT TO THE PROJECT LIMITS.

STORMWATER POLLUTION MITIGATION MEASURES (AS IDENTIFIED FROM ENVIRONMENTAL REVIEW): NO FORMAL ENVIRONMENTAL REVIEW WAS REQUIRED FOR THIS PROJECT, THEREFORE, NO ADDITIONAL STORMWATER RELATED MITIGATION MEASURES APPLY.

KARST AREAS: THERE ARE NO KNOWN ACTIVE KARST AREAS WITHIN OR ADJACENT TO THE PROJECT LIMITS.

SITE PLAN REQUIRED AREAS: NO AREAS OF "HIGH ENVIRONMENTAL RISKS" ARE KNOWN TO BE LOCATED WITHIN OR IMMEDIATELY ADJACENT TO THE PROJECT LIMITS.

FLOOD CONTINGENCY PLAN: PROJECT ACTIVITIES MAY NOT OCCUR WITHIN THE 100-YEAR FLOODPLAIN OR FLOODWAY, THEREFORE, THE PROJECT ENGINEER (AT THEIR DISCRETION) MAY REQUIRE A PREVENTATIVE FLOOD CONTINGENCY PLAN FOR SPECIFIC PROJECT ACTIVITIES AND AREAS IF SEASONAL PRECIPITATION POSSES A POTENTIAL RISK OF FLOODING WORK AREAS WITHIN THE PROJECT LIMITS. THIS PLAN SHALL BE SUBMITTED BY THE OPERATOR TO THE OWNERS REPRESENTATIVE FOR APPROVAL A MINIMUM OF 72 HOURS PRIOR TO THE SCHEDULED WORK AND/OR DURING ACTIVE WORK WITHIN THE FLOODPLAIN. NO WORK WITHIN THE FLOODPLAIN CAN COMMENCE UNTIL WRITTEN APPROVAL/NOTICE TO PROCEED FROM THE OWNERS REPRESENTATIVE IS RECEIVED.

FISH EXCLUSION DATES: FISH EXCLUSION DATES ARE NOT APPLICABLE TO THIS PROJECT LOCATION.

WETLANDS: THERE ARE SEVERAL WETLANDS WITHIN THE PROJECT AREA AND MUST BE PROTECTED TO THE MAXIMUM EXTENT POSSIBLE. APPROXIMATELY 1.03 ACRES OF WETLAND FILLED/EXCAVATION WILL BE PERMITTED. PERMITTED AREAS OF WETLAND IMPACT WILL BE PROTECTED WITH SILT FENCE ALONG THE PERIMETER OF THE FILL OR EXCAVATION LIMITS.

SEQUENCE OF CONSTRUCTION/TIMING OF BMP INSTALLATION
NO CONSTRUCTION OPERATIONS, INCLUDING REMOVALS, THAT REQUIRE EROSION & SEDIMENT CONTROL PER THE SWPPP CAN COMMENCE UNTIL THE OPERATOR'S EROSION CONTROL SUPERVISOR CERTIFIES THE PROPER INSTALLATION OF BMP'S AND A CHAIN OF RESPONSIBILITY FOR SWPPP IMPLEMENTATION IS CREATED FOR ALL OPERATORS ON THE SITE. PERIMETER SEDIMENT CONTROLS (SILT FENCE, INLET PROTECTION, CONSTRUCTION ENTRANCES, ETC.) SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. THESE PRACTICAL SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ACHIEVED. OPERATOR SHALL IMPLEMENT THE NECESSARY ON SITE BMP'S IN ACCORDANCE WITH THE NPDES PERMIT REQUIREMENTS TO PREVENT NUISANCE CONDITIONS (MN RULES 7050.2010) FROM ANY DISCHARGES UNDER COVERAGE OF THE NPDES PERMIT. IN SOME CASES, MULTIPLE OR REDUNDANT APPLICATIONS OF SOME BMP'S MAY BE NEEDED TO MEET THESE REQUIREMENTS.

INSPECTION PROCEDURES, SWPPP AMENDMENTS, RECORD KEEPING, & TRAINING
1. THE SWPPP MUST BE AMENDED BY THE OPERATOR WHEN THE IDENTITY OF THE RESPONSIBLE SITE OPERATORS (EROSION CONTROL SUPERVISOR, SUB-CONTRACTORS, ETC.) ARE KNOWN.
2. THE OPERATOR MUST INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE OPERATOR SHALL PROVIDE A RAINFALL GAUGE ON-SITE, WITHIN ONE MILE OF THE SITE, OR SOURCE OF THE WEATHER REPORTING SYSTEM THAT USES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES. THE LOCATION AND SOURCE OF THE RAINFALL GAUGE OR REPORTING SYSTEM MUST BE DOCUMENTED IN THE FIRST SWPPP INSPECTION REPORT. THE INSPECTION FREQUENCY MAY BE REDUCED TO ONCE PER MONTH OR SUSPENDED, IF SITE CONDITIONS MEET ITEM 11.10 OF THE NPDES PERMIT. ALL INSPECTIONS AND MAINTENANCE CONDUCTED MUST BE RECORDED IN WRITING BY THE OPERATOR AND RETAINED WITH THE SWPPP. THE MPCA SITE INSPECTION FORM IS AVAILABLE FOR OPERATORS TO USE TO COMPLETE THE REQUIRED INSPECTIONS. THE FORM CAN BE FOUND ON THE MPCA WEBSITE OR AVAILABLE UPON REQUEST FOR THE PROJECT OWNER. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
   A. DATE, TIME, AND NAME OF PERSON(S) CONDUCTING INSPECTIONS;
   B. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
   C. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); INCLUDING DOCUMENTATION/PHOTOS OF IMPLEMENTED BMPS INTENDED TO CORRECT A PROBLEM BUT FAILED.
   D. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS;
   E. DOCUMENTATION OF CHANGES MADE TO THE SWPPP.
3. SWPPP AMENDMENTS AND SITE PLANS WILL BE PREPARED BY THE OPERATOR AND SUBMITTED TO THE OWNER FOR REVIEW AND WRITTEN APPROVAL BY THE PROJECT OWNER (OR DESIGNATED REPRESENTATIVE). ALL OWNER ACCEPTED AND DENIED SWPPP AMENDMENTS AND SITE PLANS MUST BE RECORDED IN WRITING AND RETAINED WITH THE SWPPP.
4. THE SWPPP SHALL BE AMENDED TO INCLUDE ADDITIONAL OR MODIFIED BMPS, DESIGNED TO CORRECT IDENTIFIED PROBLEMS OR ADDRESS SITUATIONS (UNDER SECTION 6 OF THE NPDES PERMIT), PRIOR TO CONDUCTING SPECIFIC STAGES/PHASES OF THE PROJECT, AS REQUIRED BY THE OWNER AND DEFINED IN THIS PROJECT SWPPP.

   THE TABLE BELOW IS A SUMMARY OF THE REQUIRED SWPPP AMENDMENTS:

SUMMARY OF OPERATOR PREPARED SWPPP AMENDMENTS (REQUIRED BY OWNER)

SWPPP AMENDMENT NAME	SWPPP AMENDMENT DETAILS	SUBMITTAL TIMEFRAME
OPERATOR CHAIN OF RESPONSIBILITY	REFER TO "CONTACT INFORMATION/RESPONSIBLE PARTIES" SECTION	7 DAY PRIOR TO INITIATING WORK
BMP AMENDMENTS	SUBSTITUTED, ADDITIONAL, OR REDUNDANT BMPS TO COMPENSATE FOR FAILING/FAILED BMPS	DURING/AFTER CONSTRUCTION ACTIVITIES
METHODS TO MINIMIZE SOIL COMPACTION	REFER TO "EXISTING SITE CONDITIONS, SOILS, AND WATER RESOURCES" SECTION	7 DAYS PRIOR TO WORK WITHIN INFILTRATION BASINS AND PRESERVED TREE AREAS
STEEP SLOPES PHASING PLAN	REFER TO "ENVIRONMENTALLY SENSITIVE AREAS" SECTION	7 DAYS PRIOR TO INITIATING WORK
SPILL PREVENTION & RESPONSE PLAN	REFER TO "POLLUTION PREVENTION MANAGEMENT MEASURES"	7 DAY PRIOR TO INITIATING WORK
DEWATERING PLAN	REFER TO "DEWATERING" SECTION	7 DAYS PRIOR TO ACTIVITY
FLOOD CONTINGENCY PLAN	REFER TO "ENVIRONMENTALLY SENSITIVE AREAS" SECTION	72 HOURS PRIOR TO ACTIVITY

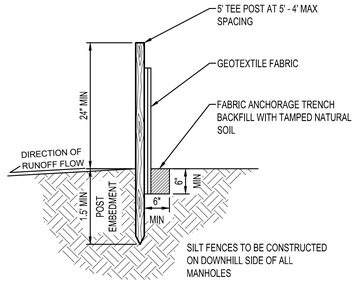
5. THE SWPPP (ORIGINAL OR COPIES), ALL CHANGES TO THE SWPPP, PROJECT MANUAL, AND INSPECTIONS/MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE OPERATOR WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN THE FIELD OFFICE OR ON SITE VEHICLE DURING NORMAL WORKING HOURS. THE PERMITTEES MUST KEEP AND MAKE AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE DAYS THE SWPPP, OTHER STORMWATER RELATED PERMITS, RECORDS OF ALL INSPECTION/MAINTENANCE, ALL PERMANENT OPERATIONS AND MAINTENANCE AGREEMENTS, ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS AND OTHER INFORMATION REQUIRED BY THE GENERAL PERMIT FOR THREE YEARS FOLLOWING THE NOTICE OF TERMINATION.
6. THE OPERATOR MUST ASSIGN A TRAINED INDIVIDUAL(S) (PURSUANT TO SECTION 21) TO OVERSEE THE IMPLEMENTATION, MAINTENANCE, AND REPAIR OF BMPS. THIS INDIVIDUAL(S) SHALL ALSO PERFORM INSPECTIONS, REVISE/AMEND THE SWPPP (DOCUMENT IN SWPPP AS NECESSARY), AND BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE PERMITTED OWNER (OR ITS DESIGNEE), LOCAL GOVERNMENT UNITS, OR MPCA. MNDOT LEAD PROJECTS REQUIRE AVAILABLE ONSITE INSPECTION WITHIN 24 HOURS.

POLLUTION PREVENTION MANAGEMENT MEASURES
POTENTIAL SOURCES OF POLLUTANTS FROM CONSTRUCTION ACTIVITIES INCLUDE:
- SEDIMENT AND FUGITIVE DUST GENERATED FROM CLEARING AND GRUBBING, IMPORT/EXPORT OPERATIONS, REMOVALS/COMPACTION, MASS/FINE GRADING, EXCAVATIONS, TRENCHING, TOPSOIL STRIPING STOCKPILING, WET/DRY PAVEMENT CUTTING, STREET CONSTRUCTION.
- BASIC/ACIDIC PH LEVELS FROM CURB AND GUTTER, MANHOLE STRUCTURES, SIDEWALKS, DRIVEWAY APRONS, FOUNDATIONS, BRIDGE ABUTMENTS, WET/DRY PAVEMENT CUTTING, MASONRY WASHOUT/CLEANOUT.
- EXCESS NUTRIENTS FROM LANDSCAPING INSTALLATIONS, SOIL ADDITIVES, FERTILIZATION, MULCHING
- HYDROCARBONS FROM STREET CONSTRUCTION, DEMOLITION/REMOVALS, WET/DRY PAVEMENT CUTTING

OPERATOR WILL COMPLY WITH ALL OF THE POLLUTION PREVENTION AND MANAGEMENT MEASURES IDENTIFIED IN THE NPDES-CSW PERMIT. OPERATOR WILL SUBMIT A SPILL PREVENTION AND RESPONSE PLAN (SPRP) TO THE ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITY. THE SPRP MUST SATISFACTORILY ADDRESS (AT A MINIMUM) THE FOLLOWING NPDES REQUIREMENTS BY THE PROPOSED IMPLEMENTATION AND MAINTENANCE OF APPROPRIATE BMPS:

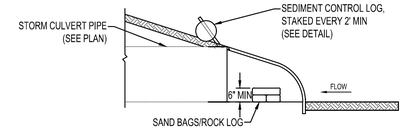
NO-EXPOSURE: CONSTRUCTION AND BUILDING PRODUCTS (THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS), PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPING MATERIALS MUST BE UNDER COVER (PLASTIC SHEETING OR TEMPORARY ROOFS) TO MINIMIZE CONTACT WITH STORMWATER AND PRECIPITATION.

SOLID WASTE: (SEDIMENT, ASPHALT, CONCRETE MILLINGS, CONSTRUCTION, AND DEMOLITION DEBRIS) AND OTHER WASTES MUST BE DISPOSED O

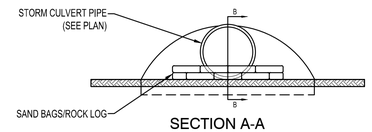


SILT FENCE

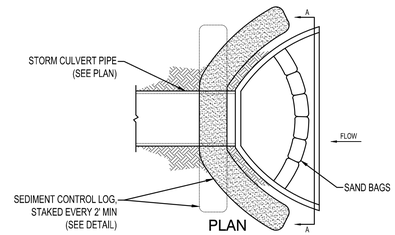
NTS EC100



SECTION B-B



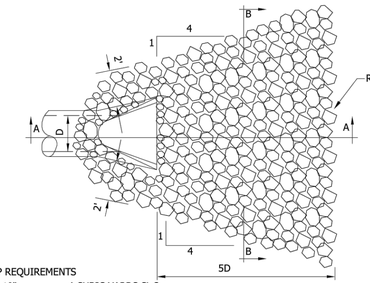
SECTION A-A



PLAN

CULVERT PIPE DITCH CHECK

NTS EC345

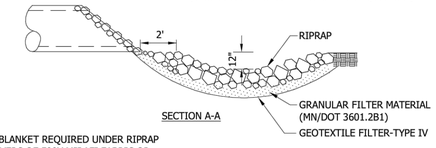


PLAN

RIPRAP REQUIREMENTS

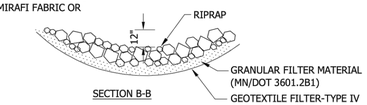
12" TO 18"	4 CUBIC YARDS CL.3
21" TO 27"	8 CUBIC YARDS CL.3
30" TO 36"	12 CUBIC YARDS CL.3
42" TO 48"	16 CUBIC YARDS CL.3
54" AND UP	20 CUBIC YARDS CL 4

(ONE CUBIC YARD IS APPROXIMATELY 2,800 LBS.)



SECTION A-A

NOTE
FILTER BLANKET REQUIRED UNDER RIPRAP OR 2 LAYERS OF 500X MIRAFI FABRIC OR EQUAL



SECTION B-B

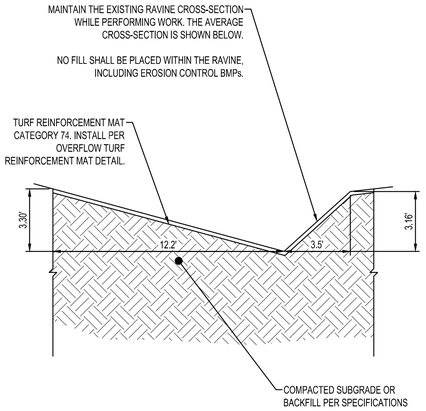
Stantec
2335 Highway 36 W
St. Paul, MN 55113
www.stantec.com

RIPRAP AT OUTLETS

CHASKA, MINNESOTA

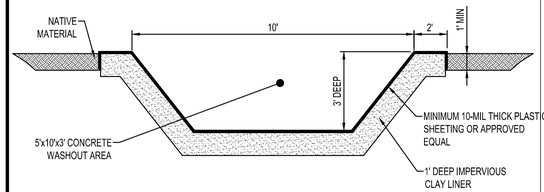
LAST REVISION: APRIL 2004

PLATE NO. STO-11



RAVINE TURF REINFORCEMENT MAT

1" = 4' SD601



NOTES:

CONTRACTOR SHALL INSTALL A SIGN INDICATING THE CONCRETE WASHOUT AREA.

CONTRACTOR SHALL MAINTAIN WASHOUT AREA TO REMOVE MATERIALS BEYOND 75% CAPACITY.

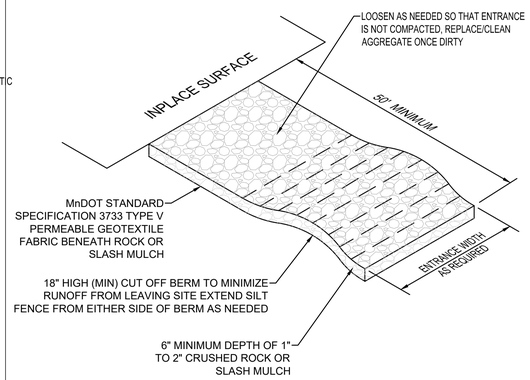
WASHOUT AREA SHALL NOT BE PLACED WITHIN 50' OF STORM DRAINS, OPEN DITCHES OR BODIES OF WATER.

CONTRACTOR SHALL INSPECT WASHOUT AREA AS NECESSARY TO PREVENT LEAKS AND OVER TOPPING.

WASHOUT AREA SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETE.

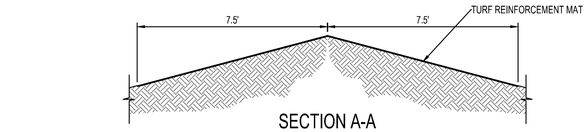
CONCRETE WASHOUT

NTS EC500



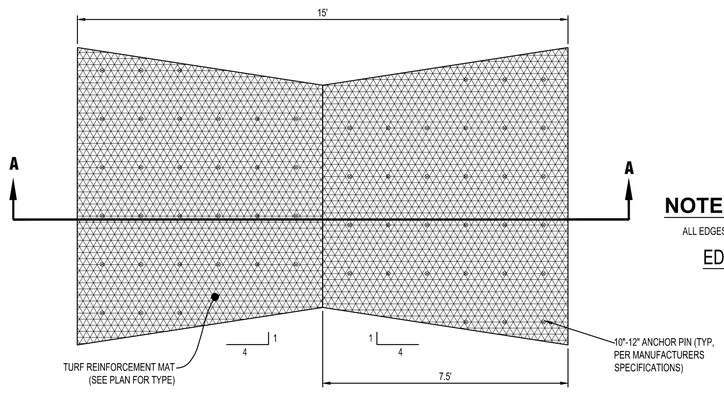
STABILIZED CONSTRUCTION EXIT

NTS EC600

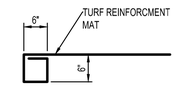


SECTION A-A

STAPLE REQUIREMENTS	
SLOPES	# OF STAPLES PER SY
< 1:2	1.2
1:2 - 1:1	1.7
CHANNEL & DITCH APPLICATIONS	3.5



PLAN



NOTES:

ALL EDGES ARE TO BE ANCHORED AND STAPLED EVERY FOOT

EDGE ANCHOR DETAIL

OVERFLOW TURF REINFORCEMENT MAT

NTS SD730

NOTE:
THE CLARITY OF THESE PLANS DEPEND UPON COLOR COPIES. IF THIS TEXT DOES NOT APPEAR IN COLOR, THIS IS NOT AN ORIGINAL PLAN SET AND MAY RESULT IN MISINTERPRETATION.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 SWPPP DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

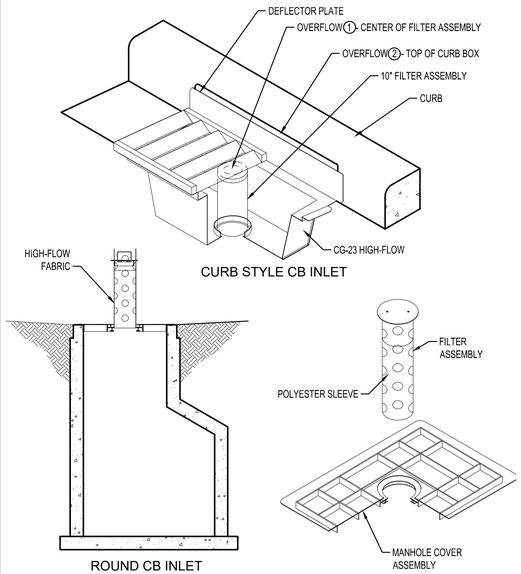
TITLE

SWPPP DETAILS

SHEET **24** OF 76

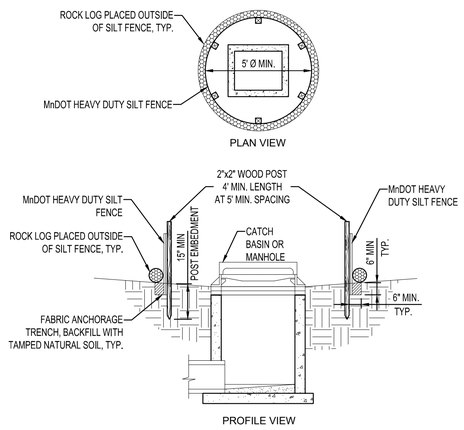
PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/27/2022 10:49 AM



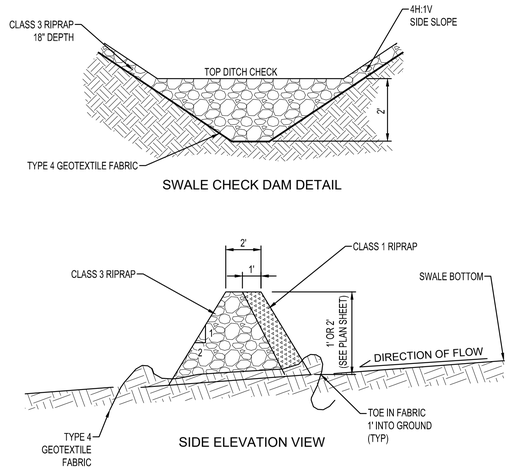
STREET INLET PROTECTION

NTS EC225



SILT FENCE INLET PROTECTION

NTS EC220

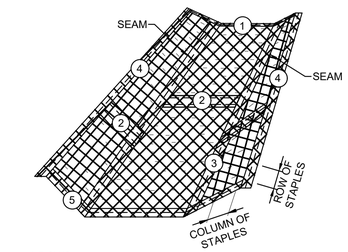


NOTES:

GEOTEXTILE FABRIC & RIPRAP ARE INCIDENTAL TO CHECK DAM CONSTRUCTION

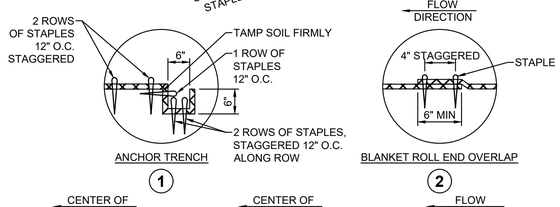
ROCK CHECK DAM

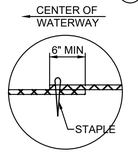
NTS EC310

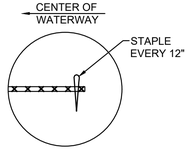


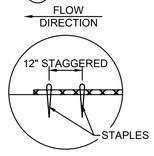


STAPLE DETAIL









NOTES:

INSTALL EROSION CONTROL BLANKET (ECB) OVER WATERWAYS AS SHOWN IN THE STORM WATER POLLUTION PREVENTION PLAN.

THE ECB SHALL CONFORM TO MnDOT STANDARD SPECIFICATIONS SECTION 3885.

PREPARE SOIL PRIOR TO INSTALLING ECB, INCLUDING SEEDING AND FERTILIZING.

THE ECB SHALL BE PLACED IN FIRM CONTACT WITH THE SOIL AND NOT BE ALLOWED TO BRIDGE OVER SURFACE IRREGULARITIES. THE MAT SHALL NOT BE STRETCHED.

START LAYING THE MATS BY ROLLING CENTER MAT IN THE DIRECTION OF FLOW, CENTERED ON THE CENTERLINE OF WATERWAY. THERE SHALL NOT BE AN OVERLAP OF MATS AT THE CENTER OF THE WATERWAY.

THE ECB SHALL BE ANCHORED, OVERLAPPED, AND STAPLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. IF NO MANUFACTURER'S INSTRUCTIONS ARE AVAILABLE, INSTALL THE MAT AS FOLLOWS.

STAPLES SHALL BE "U" SHAPED, 0.12" DIAMETER WIRE OR GREATER (#11 GAUGE). (SEE STAPLE DETAIL FOR DIMENSIONS)

1. BURY UPSTREAM END OF MAT IN A TRENCH 6" WIDE BY 6" DEEP AND STAPLED IN STAGGERED ROWS ACROSS THE WIDTH AS SHOWN IN DETAIL 1.
2. C. FOR JOINING ENDS OF ROLLS, OVERLAP END OF UP SLOPE MAT A MINIMUM OF 6" OVER DOWN SLOPE MAT (SHINGLE STYLE). USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART, AS SHOWN IN DETAIL 2.
3. D. MATS ON SIDE SLOPES SHALL OVERLAP A MINIMUM OF 6" OVER THE MAT BELOW (SHINGLE STYLE). STAPLE OVERLAP AT 12" INTERVALS. (SEE DETAIL 3)
4. E. THE OUTER EDGE ALONG SIDES OF THE MAT SHALL BE STAPLED EVERY 12". (SEE DETAIL 4)

   F. STAPLES ARE TO BE PLACED ALTERNATELY IN COLUMNS (IN THE DIRECTION OF THE WATERWAY) 2' APART AND IN ROWS (ACROSS THE WATERWAY) 3' APART THROUGHOUT THE AREA COVERED BY THE ECB.
5. G. DOWNSTREAM (TERMINAL) END OF BLANKET SHALL BE STAPLED WITH A DOUBLE ROW OF STAGGERED STAPLES 12" APART. (SEE DETAIL 5)

EROSION CONTROL BLANKET INSTALLATION

NTS EC700

PLOT DATE: 1/27/2022 10:49 AM

ISG

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 SWPPP DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

SWPPP DETAILS

SHEET

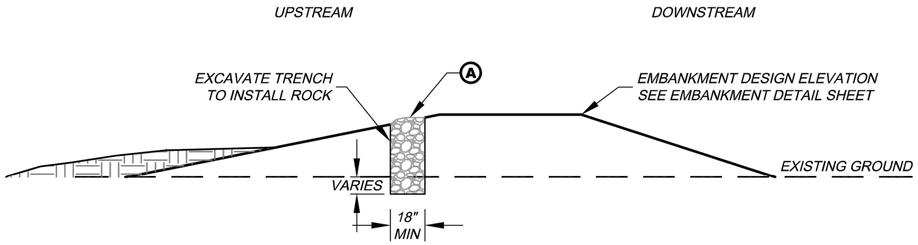
25

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

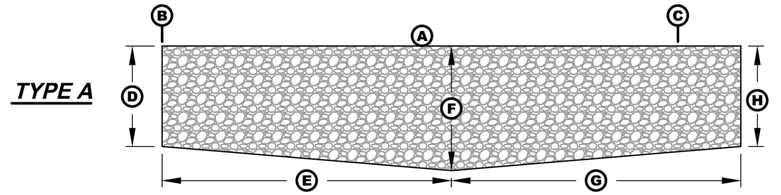
DESIGN TABLE

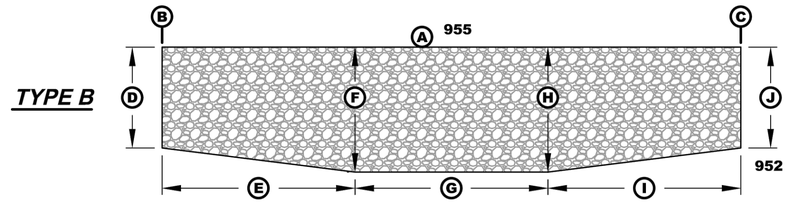
EMBANKMENT ID #	EMBANKMENT DESIGN ELEVATION (FEET)	ROCK LAYOUT TYPE (A, B, OR C)	Ⓐ TOP OF ROCK ELEVATION (FEET)	Ⓑ START STATION (FEET)	Ⓒ END STATION (FEET)	Ⓓ ROCK DEPTH (FEET)	Ⓔ ROCK LENGTH (FEET)	Ⓕ ROCK DEPTH (FEET)	Ⓖ ROCK LENGTH (FEET)	Ⓗ ROCK DEPTH (FEET)	Ⓘ ROCK LENGTH (FEET)	Ⓙ ROCK DEPTH (FEET)	Ⓚ ROCK LENGTH (FEET)	Ⓛ ROCK DEPTH (FEET)	ESTIMATED QUANTITY (SQ.FT.)
Wetland D	933.00	C	933.00	SEE SWPPP		3.0	22.5	3.2	12.1	5.4	5.6	4.1	24.0	3.0	

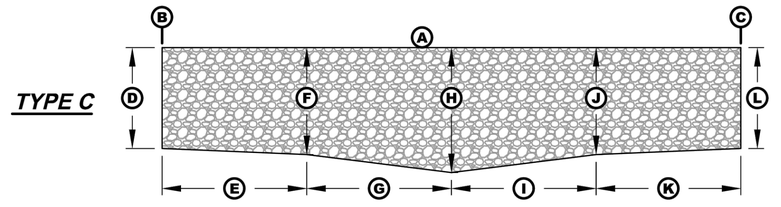


X-SECTION OF EMBANKMENT WITH RODENT PROTECTION

NOT TO SCALE







ROCK LAYOUTS FOR RODENT PROTECTION

NOT TO SCALE

ANGULAR ROCK GRADATION TABLE

ANGULAR ROCK GRADATION:
ONLY CRUSHED ANGULAR ROCK SHALL BE USED. ENGINEER RECOMMENDS CLASS I BALLAST ROCK (3/4" - 4"). SUBSTITUTE GRADATION SHALL BE APPROVED BY ENGINEER.

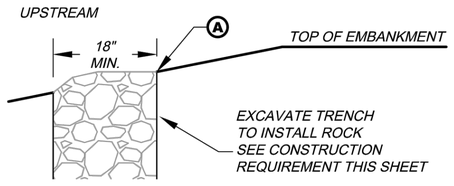
ROCK DIAMETER (INCHES)	PERCENT OF TOTAL SIZE SMALLER THAN A GIVEN SIZE (%)
2 - 4	100 - 30
< 2	29 - 0

CONSTRUCTION REQUIREMENTS

RODENT PROTECTION:
- ROCK TRENCH DEPTH MAY VARY.

- QUANTITIES ARE BASED ON A MINIMUM 18" WIDE EXCAVATED TRENCH, DEPTHS, AND LENGTHS SPECIFIED IN THE DESIGN TABLE. IF CONTRACTOR CHOOSES TO USE A WIDER BUCKET TO EXCAVATE TRENCH, CONTRACTOR WILL BE RESPONSIBLE FOR QUANTITY OVERAGES AND ADDITIONAL COSTS.

- BACK FILL AND BUCKET COMPACT PLACED ROCK IN 12" LIFTS.



TOP OF ROCK LOCATION

NOT TO SCALE

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PRINT NAME / SIGNATURE DATE: LIC. NO.

BWSR

STANDARD SHEET BWSR 103

WETLAND RESTORATION PLAN

ROCK RODENT PROTECTION DETAIL

PROJECT #:

SHEET NO.

OF

ISG

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LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

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TITLE

SWPPP DETAILS

SHEET

26

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/27/2022 10:49 AM

EROSION CONTROL QUANTITIES

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
2511.507	RANDOM RIPRAP, CLASS III	CY	143
2573.502	PROPOSED STORM DRAIN INLET PROTECTION	EACH	68
2573.501	STABILIZED CONSTRUCTION EXIT	EACH	1
2575.504	EROSION CONTROL BLANKET, CATEGORY 3N	SY	26,976
	PERIMETER CONTROL	LF	10,428
	CONCRETE WASHOUT AREA	EA	1

QUANTITIES ARE FOR INFORMATIONAL PURPOSES TO MEET THE REQUIREMENTS OF THE CONSTRUCTION STORMWATER PERMIT. NO GUARANTEE IS MADE TO THE ACTUAL QUANTITIES REQUIRED.

RPBCWD STANDARD EROSION CONTROL NOTES (cont. from SWPPP Narrative Sheet)

a. Natural topography and soil conditions must be protected, including retention onsite of native topsoil to the greatest extent possible.

b. Additional measures, such as hydraulic mulching and other practices as specified by the District must be used on slopes of 3:1 (H:V) or steeper to provide adequate stabilization.

c. Final site stabilization measures must specify that at least six inches of topsoil or organic matter with at least 5% organic content (shall meet RPBCWD topsoil definition) be spread and incorporated into the underlying soil during final site treatment wherever topsoil has been removed.

d. Construction site waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste must be properly managed.

e. All temporary erosion and sediment control BMPs must be maintained until completion of construction and vegetation is established sufficiently to ensure stability of the site, as determined by the District.

f. All temporary erosion and sediment control BMPs must be removed upon final stabilization.

g. Soil surfaces compacted during construction and remaining pervious upon completion of construction must be decompacted to achieve a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of the soil profile while taking care to protect utilities, tree roots, and other existing vegetation.

h. Infiltration facilities must not be excavated to within 3-ft of final grade until contributing drainage area has been constructed and fully stabilized. Any accumulated sediment in an infiltration facility must be removed in a manner that prevents compaction of the facility bottom. To provide a well-aerated, highly porous surface, the soils below an infiltration practice must be loosened to a minimum depth of 18" prior to installation or planting.

i. All disturbed areas must be stabilized within 7 calendar days after land-disturbing work has temporarily or permanently ceased on a property that drains to an impaired water, within 14 days elsewhere.

j. The permittee must, at a minimum, inspect, maintain and repair all disturbed surfaces and all erosion and sediment control facilities and soil stabilization measures every day work is performed on the site and at least weekly until land-disturbing activity has ceased. Thereafter, the permittee must perform these responsibilities at least weekly until vegetative cover is established. The permittee will maintain a log of activities under this section for inspection by the District on request.

k. For any in water work, potential transfer of aquatic species (e.g. zebra mussels, Eurasian watermilfoil, etc.) shall be minimized to the maximum extent possible.

l. After inspection of all erosion prevention, sediment control facilities, and soil stabilization, the contractor shall repair, replace or supplement all non-functional BMPs with functional BMPs within 48 hours of discovery and prior to the next rainfall event or as soon as possible. When active land-disturbing activities are not underway, inspection and these responsibilities shall take place weekly until vegetative cover is established. Also a log of inspection and repair activities shall be maintained and available per request of the watershed district (RBPCWD).

m. No activity affecting the bed or banks of a protected water may be conducted between March 15 and June 15 on watercourses, or between April 1 and June 30 on all other public waterbodies, to minimize impacts on fish spawning and migration.

n. Banks must be stabilized immediately after completion of permitted work and re-vegetated as soon as growing conditions allow.



EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
	RANDOM RIPRAP, CLASS III
PC	PERIMETER CONTROL
SF	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TURF REINFORCEMENT MAT, CATEGORY 74
	STABILIZED CONSTRUCTION EXIT
	EROSION CONTROL BLANKET, CATEGORY 3N
	CONCRETE WASHOUT AREA
	ROCK DITCH CHECK
101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)

PERIMETER CONTROL CAN BE SILT FENCE OR SEDIMENT CONTROL LOG.

SEE SITE RESTORATION PLAN FOR FINAL TURF ESTABLISHMENT.

SLOPES 3:1 OR GREATER MUST BE STABILIZED IMMEDIATELY FOLLOWING EXCAVATION.

NOTE: SWPPP COVERAGE INCLUDES ELECTRIC, GAS, TELEPHONE, AND CABLE INSTALLATION. EACH COMPANY OR THEIR SUBCONTRACTOR IS RESPONSIBLE TO FOLLOW THE REQUIREMENTS OF THIS SWPPP INCLUDING PROVIDING THEIR OWN RESTORATION IF INSTALLATION OCCURS AFTER PRIMARY INSTALLATION OF SEEDING/SODDING/MULCHING DURING CONSTRUCTION OF EACH UTILITY.

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

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1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
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DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

PROPOSED SWPPP (OVERALL)

SHEET

27

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/27/2022 10:56 AM

EROSION CONTROL LEGEND

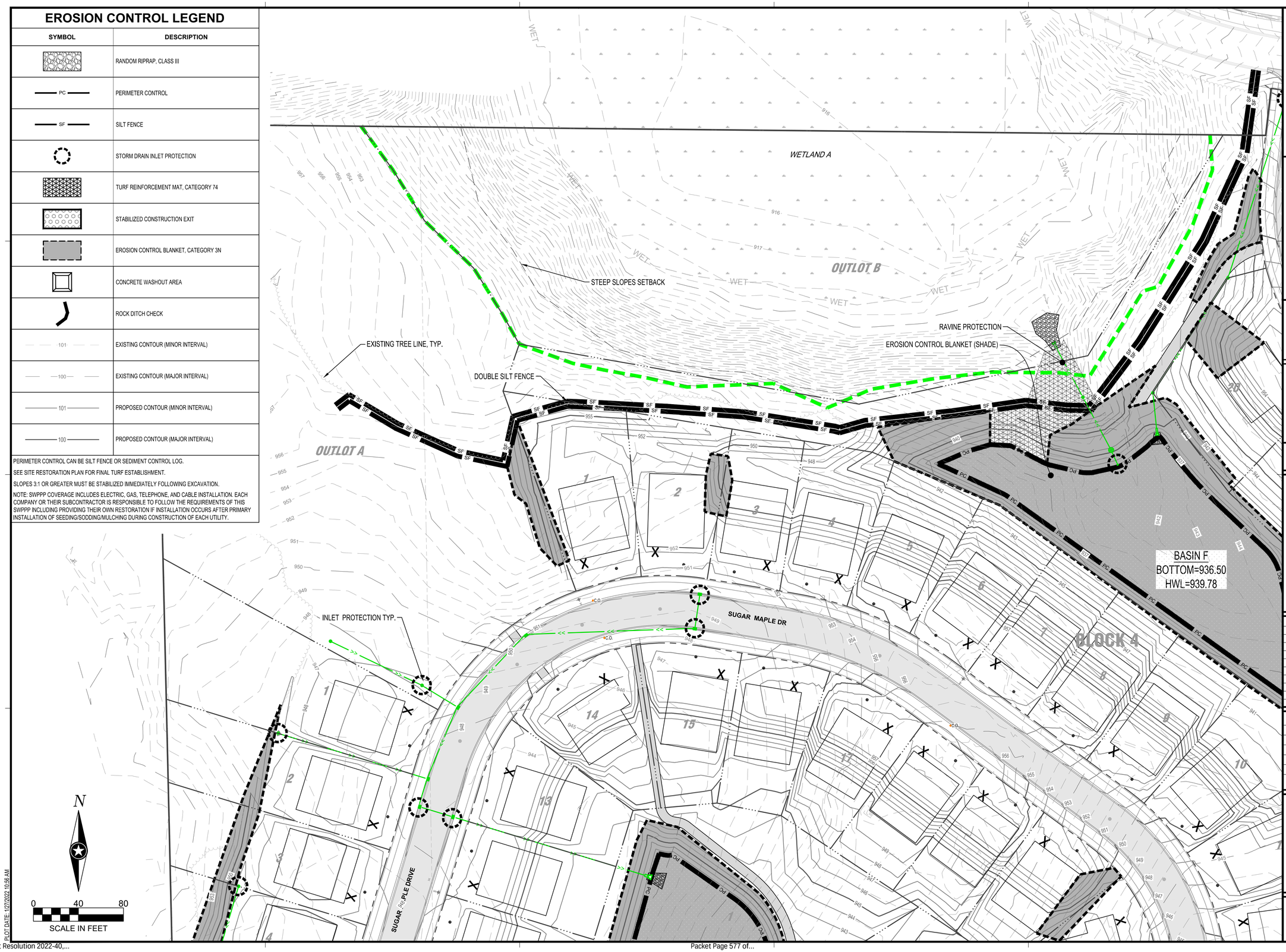
SYMBOL	DESCRIPTION
	RANDOM RIPRAP, CLASS III
PC	PERIMETER CONTROL
SF	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TURF REINFORCEMENT MAT, CATEGORY 74
	STABILIZED CONSTRUCTION EXIT
	EROSION CONTROL BLANKET, CATEGORY 3N
	CONCRETE WASHOUT AREA
	ROCK DITCH CHECK
101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)

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TITLE

PROPOSED SWPPP (NW)

SHEET

28 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

ROCK CONSTRUCTION ENTRANCE

CONCRETE WASHOUT

EROSION CONTROL BLANKET, TYP. (SHADE)

DOUBLE SILT FENCE

RAVINE PROTECTION

INLET PROTECTION TYP.

BASIN F
BOTTOM=936.50
HWL=939.78

OUTLOT B

IRONWOOD BLVD.

AUDUBON ROAD (COUNTY ROAD 15)

BLOCK 1

BLOCK 4

BLOCK 4

WET

WETLAND A

EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
	RANDOM RIPRAP, CLASS III
PC	PERIMETER CONTROL
SF	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TURF REINFORCEMENT MAT, CATEGORY 74
	STABILIZED CONSTRUCTION EXIT
	EROSION CONTROL BLANKET, CATEGORY 3N
	CONCRETE WASHOUT AREA
	ROCK DITCH CHECK
101	EXISTING CONTOUR (MINOR INTERVAL)
100	EXISTING CONTOUR (MAJOR INTERVAL)
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N

0 40 80
SCALE IN FEET

PLOT DATE: 1/27/2022 10:56 AM

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CHASKA MINNESOTA

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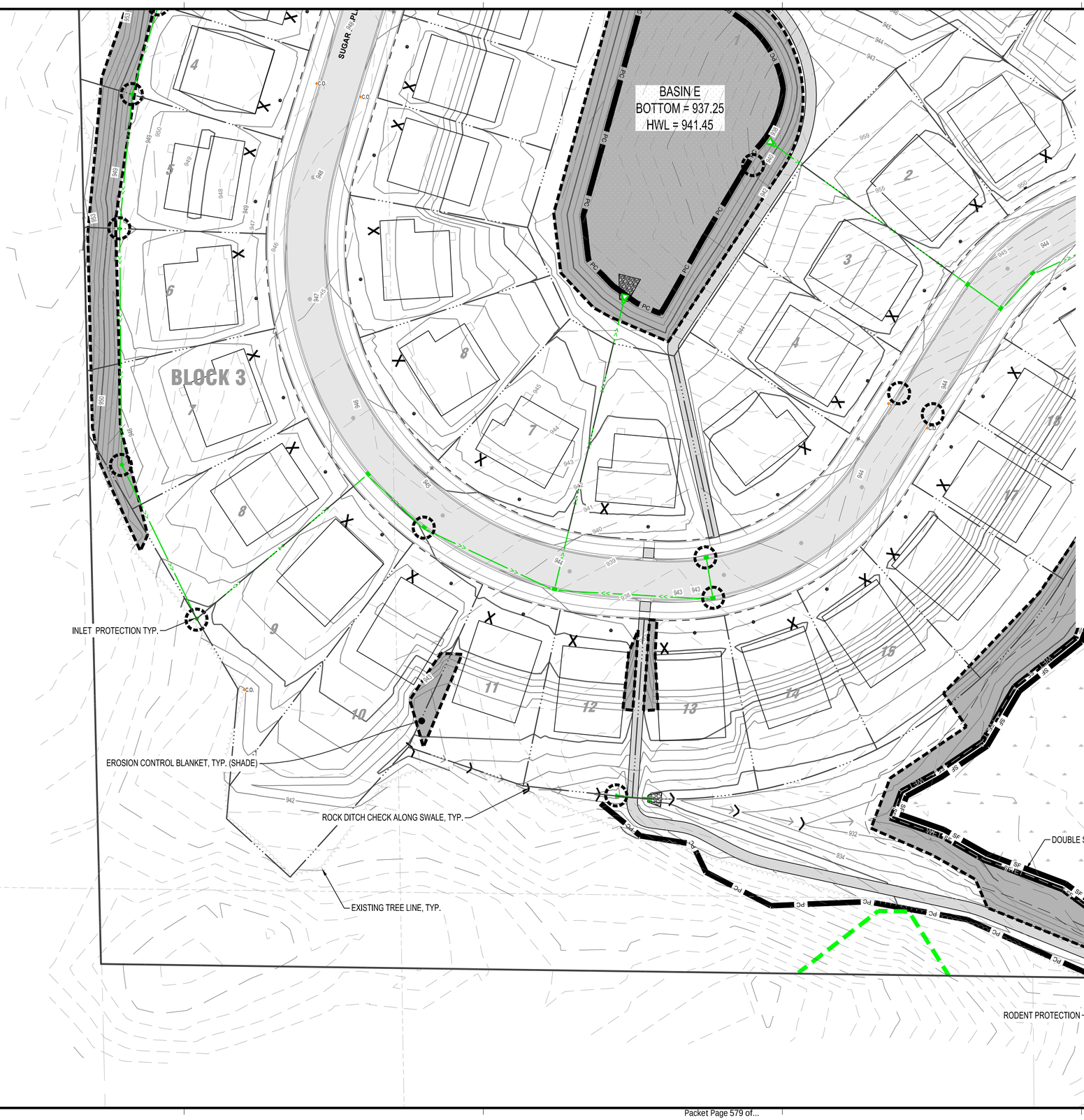
PROPOSED SWPPP (NE)

SHEET

29

OF 76

PRELIMINARY NOT FOR CONSTRUCTION



EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
	RANDOM RIPRAP, CLASS III
PC	PERIMETER CONTROL
SF	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TURF REINFORCEMENT MAT, CATEGORY 74
	STABILIZED CONSTRUCTION EXIT
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PROPOSED SWPPP (SW)

SHEET

30 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

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SUGAR MAPLE DRIVE

IRONWOOD BLVD.

BLOCK 3

BLOCK 2

DOUBLE SILT FENCE

BASIN C
BOTTOM=926.00
NWL = 930.50
HWL = 933.50

WETLAND D

WETLAND D
NWL= 929.40
HWL = 932.52

BASIN A
BOTTOM = 929.75
HWL = 932.52

BASIN B
BOTTOM=930.50
HWL = 932.53

INLET PROTECTION TYP.

EROSION CONTROL BLANKET, TYP. (SHADE)

RODENT PROTECTION

N

0 40 80
SCALE IN FEET

EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
	RANDOM RIPRAP, CLASS III
PC	PERIMETER CONTROL
SF	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TURF REINFORCEMENT MAT, CATEGORY 74
	STABILIZED CONSTRUCTION EXIT
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	CONCRETE WASHOUT AREA
	ROCK DITCH CHECK
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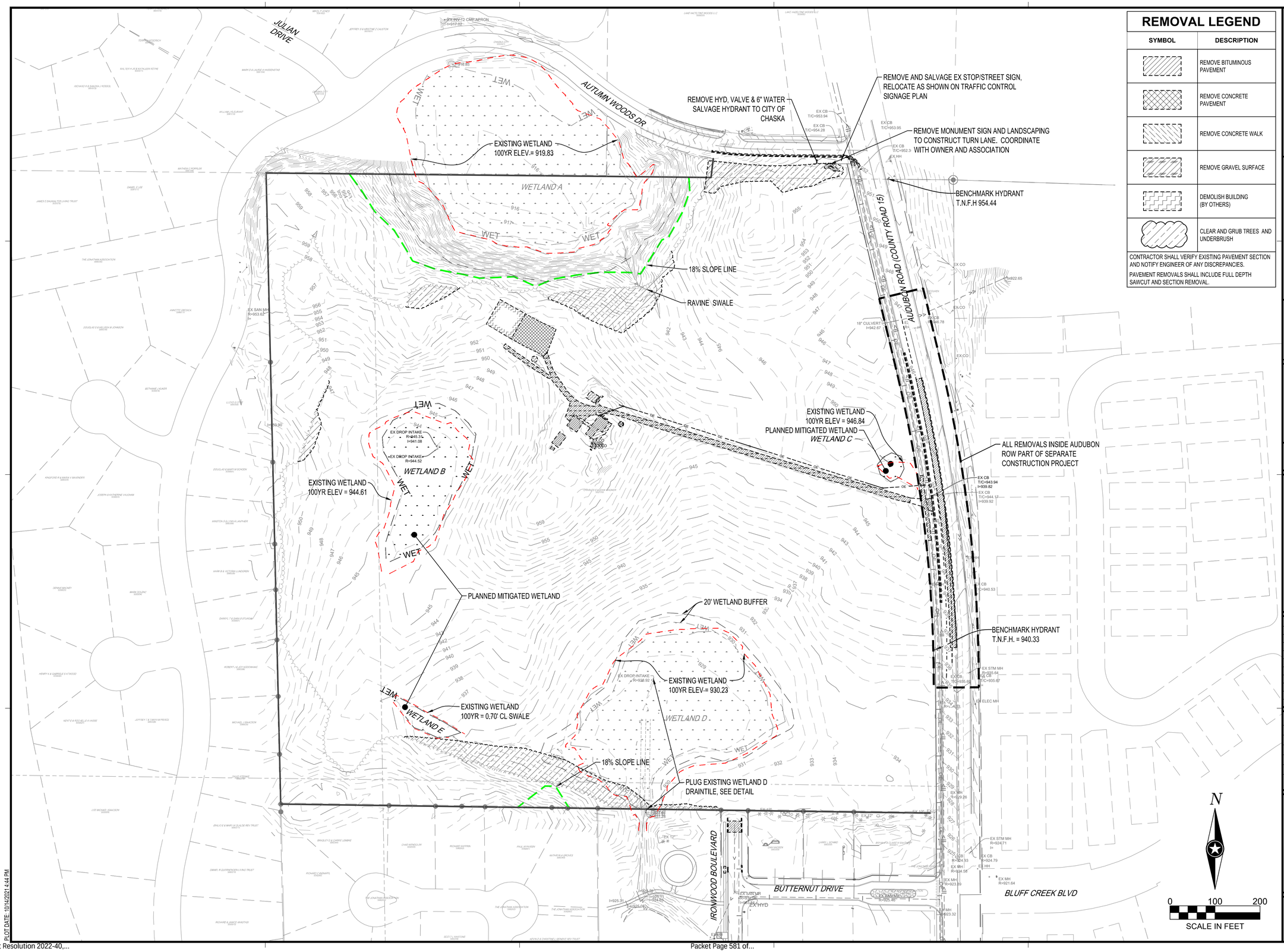
SHEET

31

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

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REMOVAL LEGEND

SYMBOL	DESCRIPTION
	REMOVE BITUMINOUS PAVEMENT
	REMOVE CONCRETE PAVEMENT
	REMOVE CONCRETE WALK
	REMOVE GRAVEL SURFACE
	DEMOLISH BUILDING (BY OTHERS)
	CLEAR AND GRUB TREES AND UNDERBRUSH

CONTRACTOR SHALL VERIFY EXISTING PAVEMENT SECTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

PAVEMENT REMOVALS SHALL INCLUDE FULL DEPTH SAWCUT AND SECTION REMOVAL.

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DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

EXISTING SITE AND REMOVAL PLAN

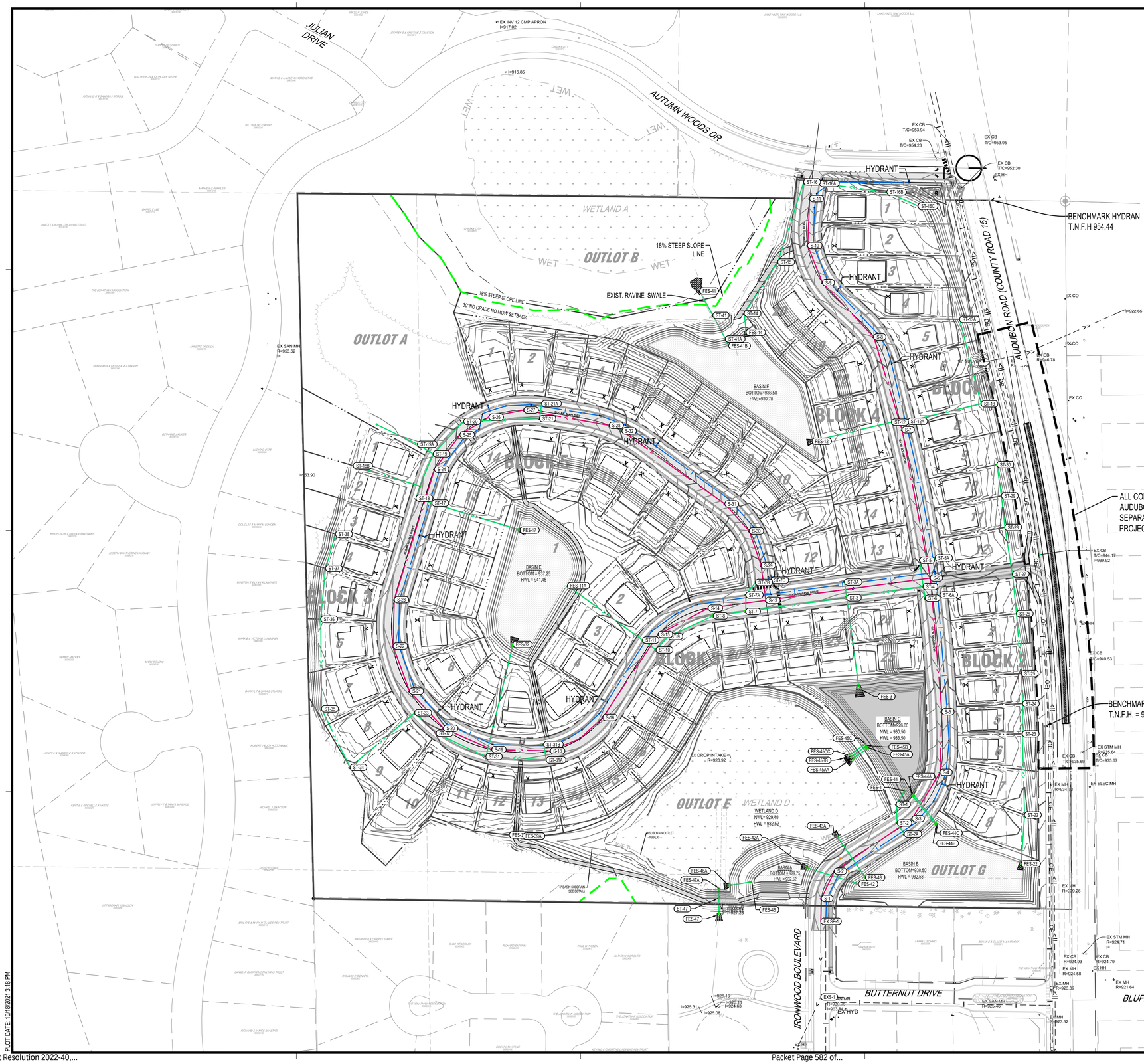
SHEET

32

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 10/14/2021 4:44 PM



UTILITY LEGEND

EXISTING		PROPOSED
— — — >> — — —	STORM DRAIN	——— >> ———
— — — > — — —	SANITARY SEWER	——— > ———
— — — II> — — —	SANITARY SEWER FORCEMAIN	——— <II ———
— — — I — — —	WATER MAIN	——— I ———
— — — G — — —	GAS	——— G ———
— — — OE — — —	OVERHEAD ELECTRIC	——— OE ———
— — — UE — — —	UNDERGROUND ELECTRIC	——— UE ———
— — — UT — — —	UNDERGROUND TELEPHONE	——— UT ———
— — — UTV — — —	UNDERGROUND TV	
— — — OHL — — —	OVERHEAD UTILITY	
— — — UTL — — —	UNDERGROUND UTILITY	
— — — FBO — — —	FIBER OPTIC	

NOTE:
CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES.

ISG

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 UTILITES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

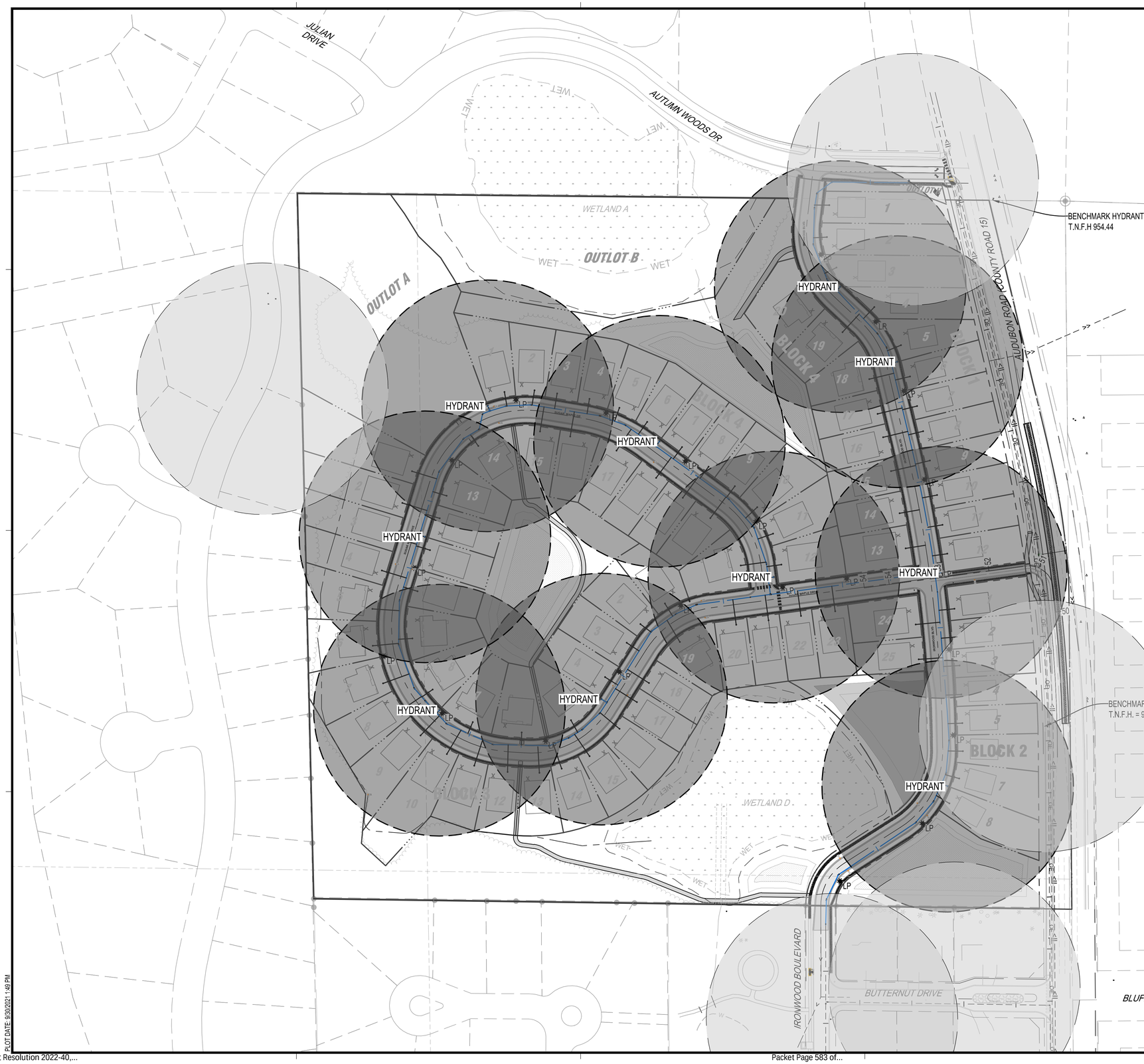
UTILITY PLAN (OVERALL)

SHEET

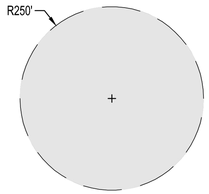
33 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

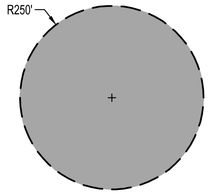
PLOT DATE: 10/18/2021 3:18 PM



HYDRANT COVERAGE LEGEND



EXISTING HYDRANT



PROPOSED HYDRANT

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RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 HYD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

HYDRANT COVERAGE MAP

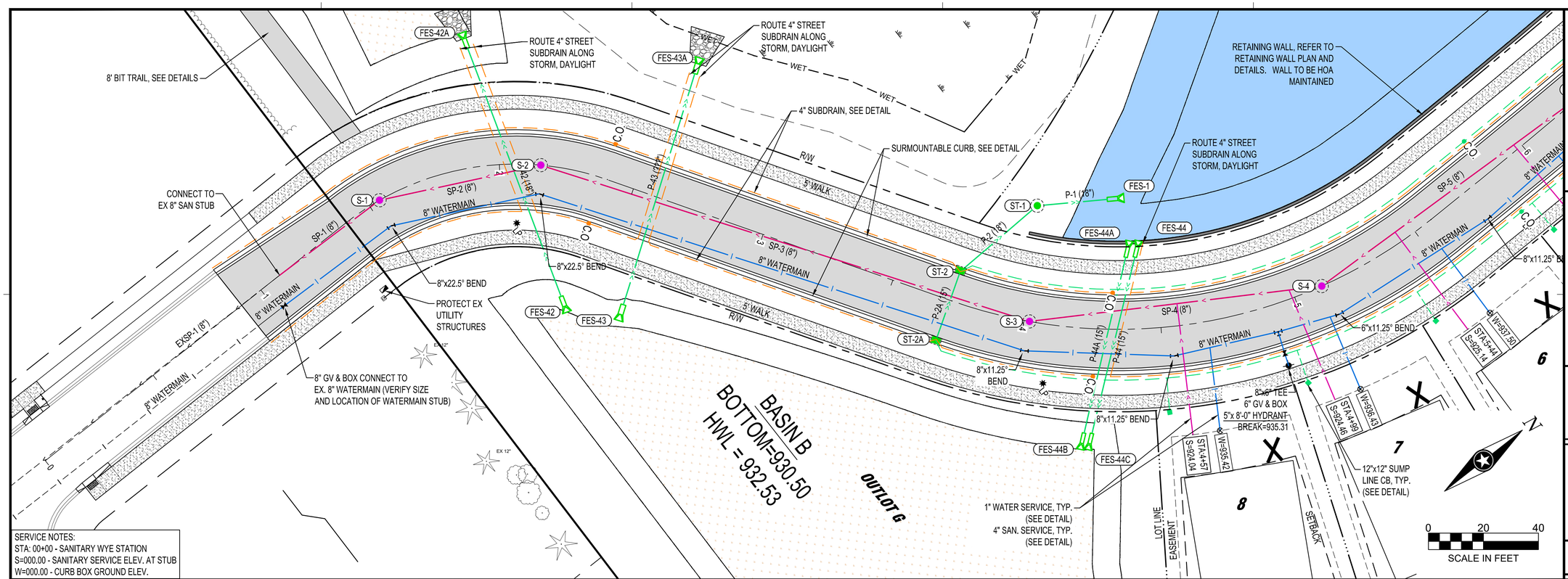
SHEET

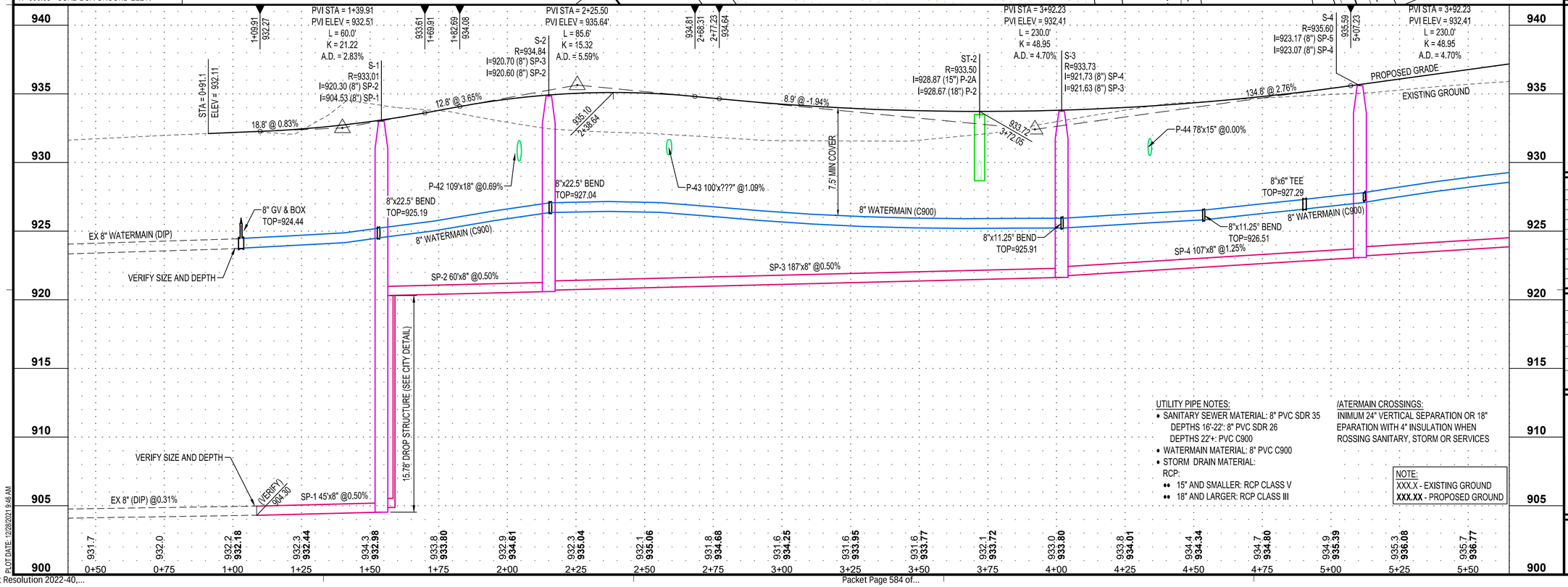
34

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 9/30/2021 1:49 PM





UTILITY PIPE NOTES:
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III

/ATERMAIN CROSSINGS:
INIMUM 24" VERTICAL SEPARATION OR 18"
EPARATION WITH 4" INSULATION WHEN
ROSSING SANITARY, STORM OR SERVICES

NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

PRELIMINARY NOT FOR CONSTRUCTION

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PROF IRONWOOD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

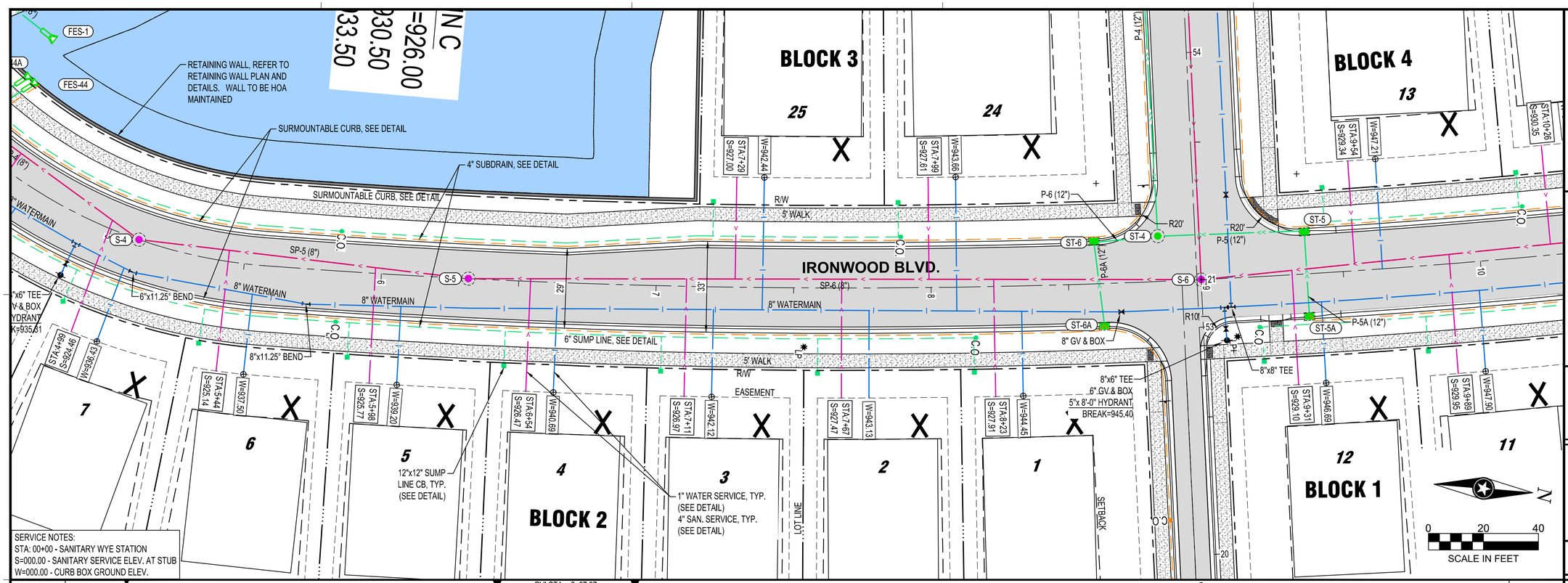
TITLE

PLANNED STREET AND UTILITY CONSTRUCTION (IRONWOOD BLVD)

SHEET

35 OF 76

PLOT DATE: 12/28/2021 9:46 AM

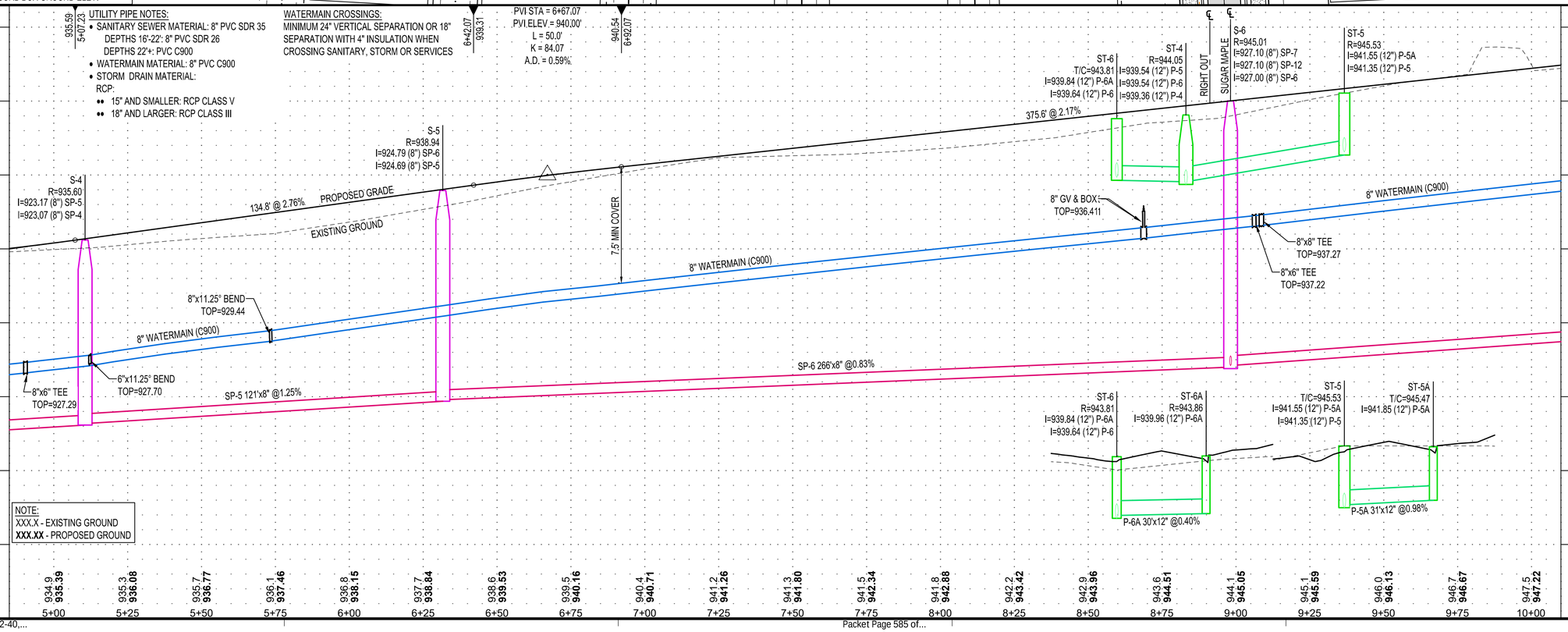


SERVICE NOTES:
STA: 00+00 - SANITARY WYE STATION
S=000.00 - SANITARY SERVICE ELEV. AT STUB
W=000.00 - CURB BOX GROUND ELEV.

UTILITY PIPE NOTES:
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III

WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES

PVI STA = 6+67.07
PVI ELEV = 940.00'
L = 50.0'
K = 84.07
A.D. = 0.59%



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

STA	S=	W=
5+07.23	935.59	
5+25	935.3	936.08
5+50	935.7	936.77
5+75	936.1	937.46
6+00	936.8	938.15
6+25	937.7	938.84
6+42.07	938.6	939.31
6+50	938.6	939.53
6+75	939.5	940.16
6+92.07	940.54	
7+00	940.4	940.71
7+25	941.2	941.26
7+50	941.3	941.80
7+75	941.5	942.34
8+00	941.8	942.88
8+25	942.2	943.42
8+50	942.9	943.96
8+75	943.6	944.51
9+00	944.1	945.05
9+25	945.1	945.59
9+50	946.0	946.13
9+75	946.7	946.67
10+00	947.5	947.22

PLOT DATE: 12/28/2021 9:46 AM

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DATE _____ LIC. NO. 55871

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PROJECT
LENNAR
RESERVE AT AUTUMN WOODS
CHASKA MINNESOTA

REVISION SCHEDULE

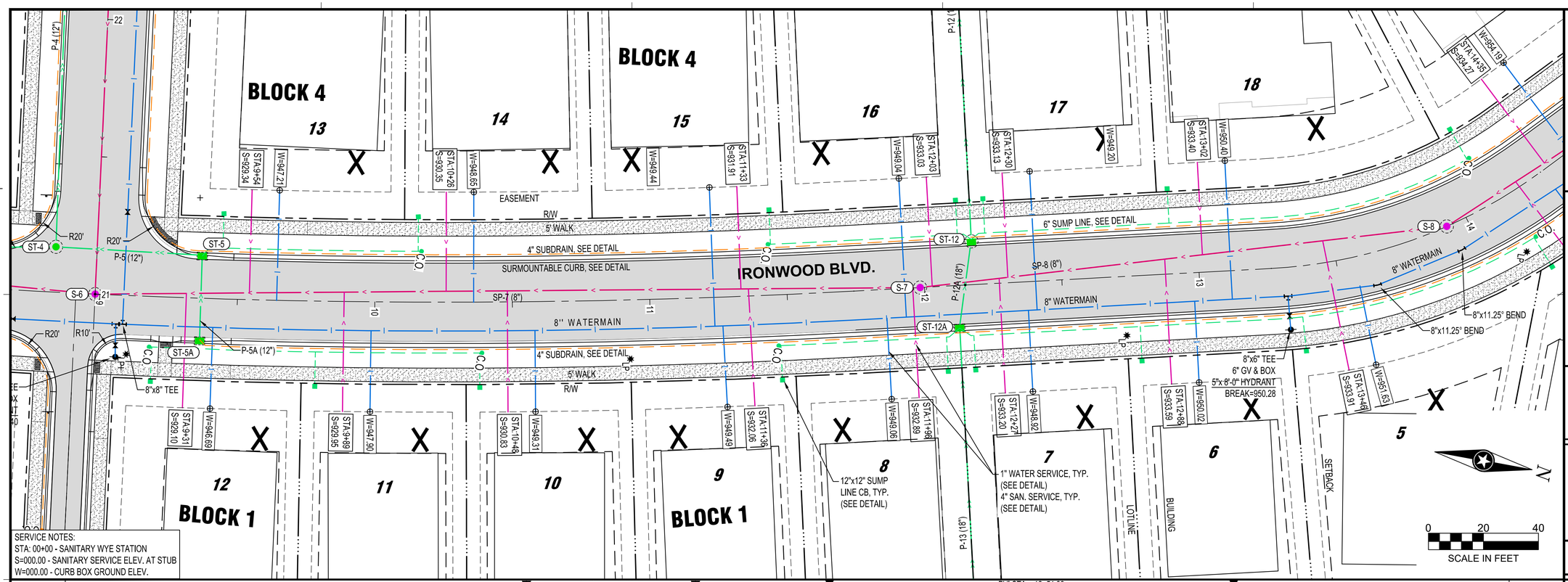
DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

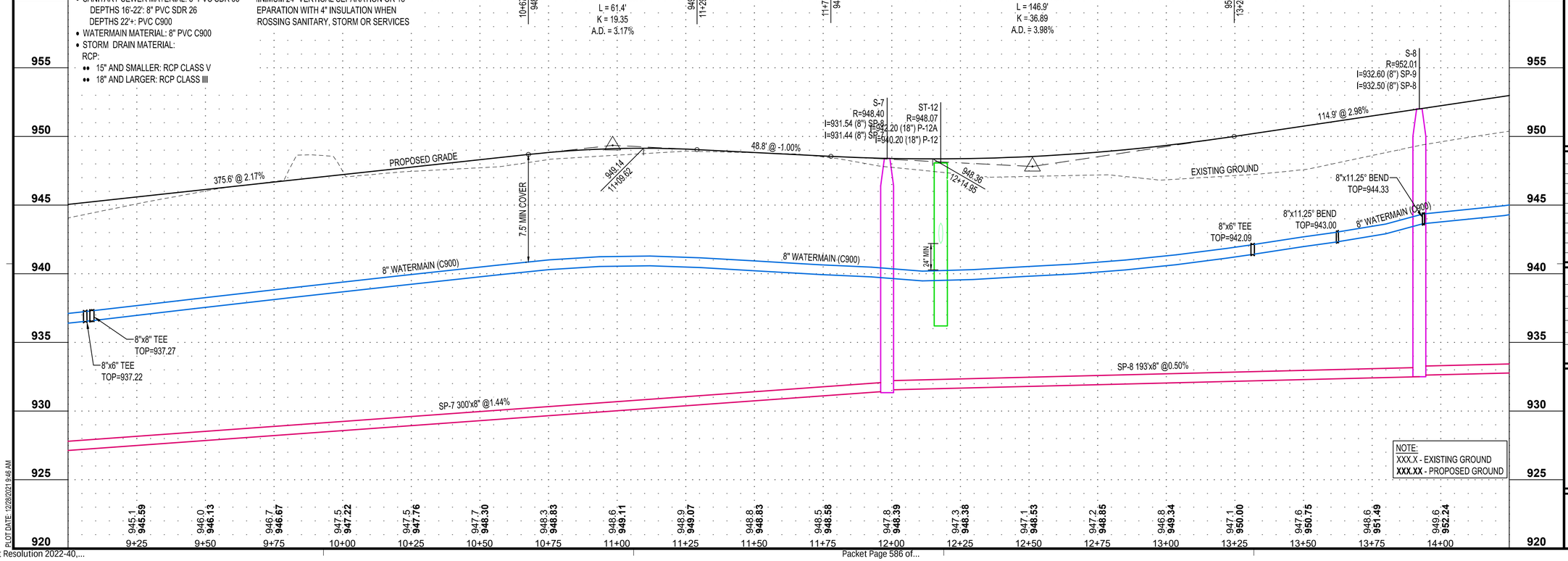
PROJECT NO.	21-24984
FILE NAME	24984 PROF IRONWOOD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE
PLANNED STREET AND UTILITY CONSTRUCTION (IRONWOOD BLVD)

SHEET
36 OF 76

PRELIMINARY NOT FOR CONSTRUCTION





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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PROF IRONWOOD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

PLANNED STREET AND UTILITY CONSTRUCTION (IRONWOOD BLVD)

SHEET

37 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/28/2021 9:46 AM

SERVICE NOTES:
STA: 00+00 - SANITARY WYE STATION
S=000.00 - SANITARY SERVICE ELEV. AT STUB
W=000.00 - CURB BOX GROUND ELEV.

IRONWOOD BLVD.
BLOCK 4
BLOCK 1
AUTUMN WOODS DR.
LOT LINE
SETBACK
EASEMENT
R/W
BUILDING PAD
4' SUBDRAIN, SEE DETAIL
SURMOUNTABLE CURB, SEE DETAIL
5' WALK
8" SUMP LINE, SEE DETAIL
12"x12" SUMP LINE CB, TYP. (SEE DETAIL)
1" WATER SERVICE, TYP. (SEE DETAIL)
4" SAN. SERVICE, TYP. (SEE DETAIL)
8"x6" TEE
6" GV & BOX
5"x 8'-0" HYDRANT
BREAK=954.29
8" WATERMAIN
8"x22.5° BEND
8"x11.25° BEND
8"x45° BEND
SP-10 (8")
SP-11 (8")
SP-9 (8")
P-16 (15")
P-16A (18")
P-16B (15")
S-8
S-9
S-10
S-11
ST-16
ST-16A
ST-16B
C.O.
L4
L5
L7
L3
R20'
18
63
62

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0 20 40
SCALE IN FEET

PVI STA = 12+51.33
PVI ELEV = 947.81
L = 146.9'
K = 36.89
A.D. = 3.98%

PVI STA = 15+15.41
PVI ELEV = 955.67"
L = 151.5'
K = 19.23
A.D. = 7.88%

PVI STA = 17+06.47
PVI ELEV = 946.31
L = 105.0'
K = 36.21
A.D. = 2.90%

S-8
R=952.01
I=932.60 (8") SP-9
I=932.50 (8") SP-8
114.9' @ 2.98%
954.27
14+96.92
S-9
R=953.75
I=933.45 (8") SP-10
I=933.34 (8") SP-9
62.8' @ -4.90%
S-10
R=950.50
I=933.94 (8") SP-11
I=933.84 (8") SP-10
S-11
R=946.40
I=934.41 (8") SP-11
ST-16
R=945.38
I=940.30 (18") P-16A
I=940.10 (15") P-16
10.1' @ -2.00%
PROPOSED GRADE
EXISTING GROUND
7.5' MIN COVER
8"x6" TEE
TOP=942.09
8"x11.25° BEND
TOP=943.00
8"x6" TEE
TOP=946.23
8"x11.25° BEND
TOP=945.66
8"x22.5° BEND
TOP=943.47
8"x11.25° BEND
TOP=940.10
8"x45° BEND
TOP=938.84
8"x45° BEND
TOP=939.51
(SEE AUTUMN WOODS DR FOR CONTINUATION)
8" WATERMAIN (C900)
SP-9 149'x8" @0.50%
SP-10 79'x8" @0.50%
SP-11 94'x8" @0.50%
STA = 17+69.0
ELEV = 945.06
AUTUMNS WOODS DR

NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

947.1 **950.00** 13+25
947.6 **950.75** 13+50
948.6 **951.49** 13+75
949.6 **952.24** 14+00
950.4 **952.98** 14+25
951.6 **953.70** 14+50
952.9 **954.14** 14+75
953.9 **954.27** 15+00
954.8 **954.06** 15+25
954.4 **953.54** 15+50
953.9 **952.68** 15+75
953.4 **951.53** 16+00
951.7 **950.30** 16+25
950.5 **949.08** 16+50
949.6 **947.91** 16+75
951.1 **946.92** 17+00
949.5 **946.10** 17+25
946.7 **945.45** 17+50
945.3 17+75
945.2 18+00
18+25

UTILITY PIPE NOTES:
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III

WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES

PROJECT
LENNAR
RESERVE AT AUTUMN WOODS
CHASKA MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PROF IRONWOOD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE
PLANNED STREET AND UTILITY CONSTRUCTION (IRONWOOD BLVD)

SHEET
38 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/28/2021 9:46 AM

AUTUMN WOODS DR

AUDUBON RD

EXISTING MONUMENT SIGN AND LANDSCAPING, COORDINATE REMOVAL WITH CITY AND ASSOCIATION

EX CB T/C=963.95

EX CB T/C=954.28

EX CB T/C=952.30

N

0 20 40

SCALE IN FEET

89' TAPER

135'

B618 CURB & GUTTER

5' CONC. WALK

R20'

R25'

ST-16

ST-16A

8"x45° BEND

P-16A (18")

10 TO 1 TAPER

8" WATERMAIN

4" SUBDRAIN, SEE DETAIL

OUTLOT H

8"x6" TEE
6" GV & BOX
5'x 8'-0" HYDRANT
BREAK=954.68

PROPOSED MONUMENT SIGN WITH LANDSCAPING, COORDINATE WITH CITY AND ASSOCIATION

P-16B (15")

ST-16B

1" WATER SERVICE, TYP. (SEE DETAIL)
4" SAN. SERVICE, TYP. (SEE DETAIL)

CONNECT TO EX. 8" WATERMAIN

P-16C (15")

ST-16C

S-11

STA:17+12
S=935.89

W=947.90

8"x11.25° BEND

5' WALK

R/W

SURMOUNTABLE CURB, SEE DETAIL

8" WATERMAIN

8" SUMP LINE, SEE DETAIL

EASEMENT

1

BLOCK 1

SETBACK

LOT LINE

P-16 (15")

SP-11 (8")

8" WATERMAIN

12"x12" SUMP LINE CB, TYP. (SEE DETAIL)

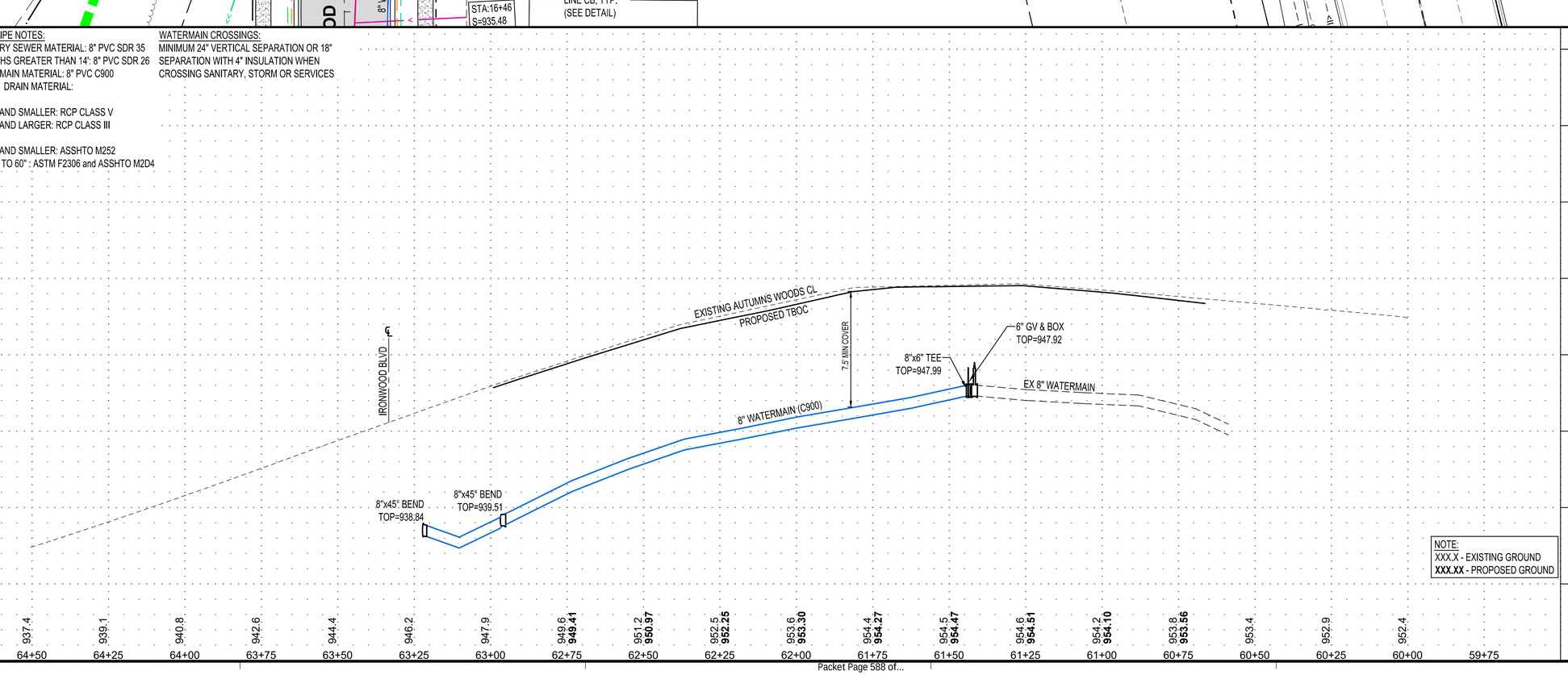
STA:16+46
S=935.48

IRONWOOD BLVD

UTILITY PIPE NOTES:

- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS GREATER THAN 14': 8" PVC SDR 26
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III
  HDPE:
  - 10" AND SMALLER: ASSHTO M252
  - 12" TO 60" : ASTM F2306 and ASSHTO M2D4

WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

PLOT DATE: 12/10/2021 12:27 PM

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	23476 PROF AUTUMN
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

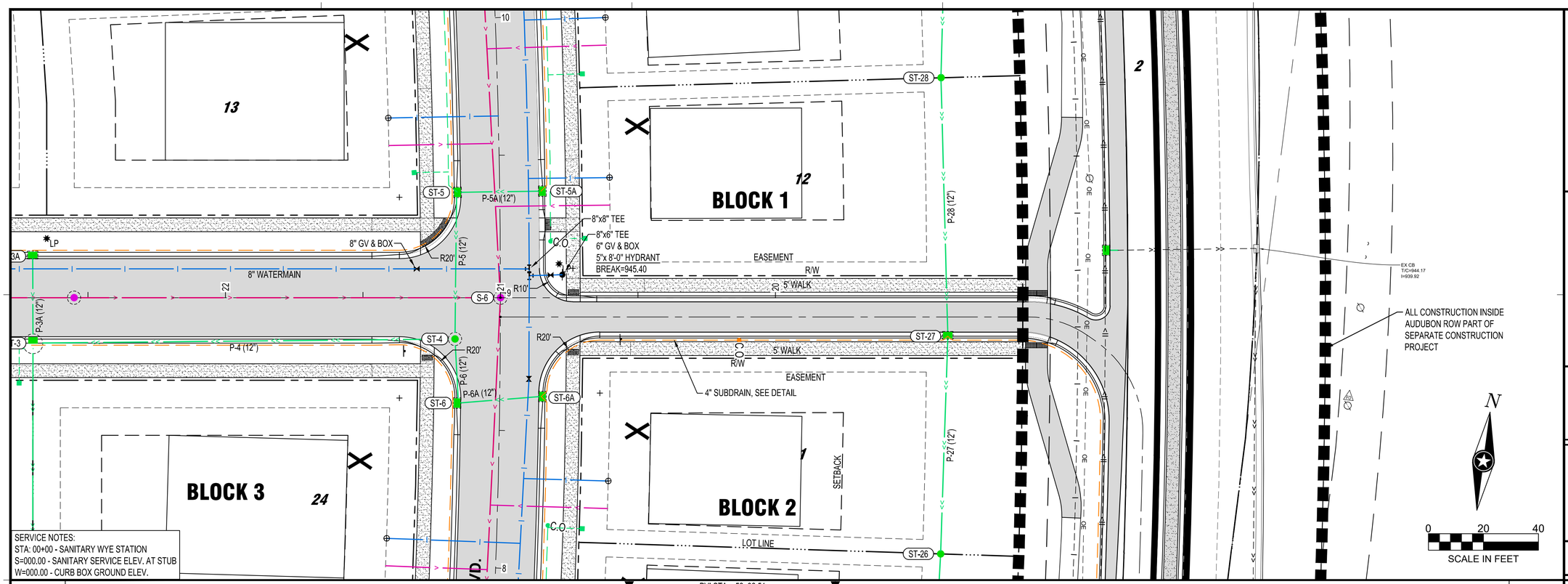
TITLE

PLANNED STREET AND UTILITY CONSTRUCTION (AUTUMN WOODS DR)

SHEET

39 OF 76

PRELIMINARY NOT FOR CONSTRUCTION



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CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PROF SUGAR MAPLE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

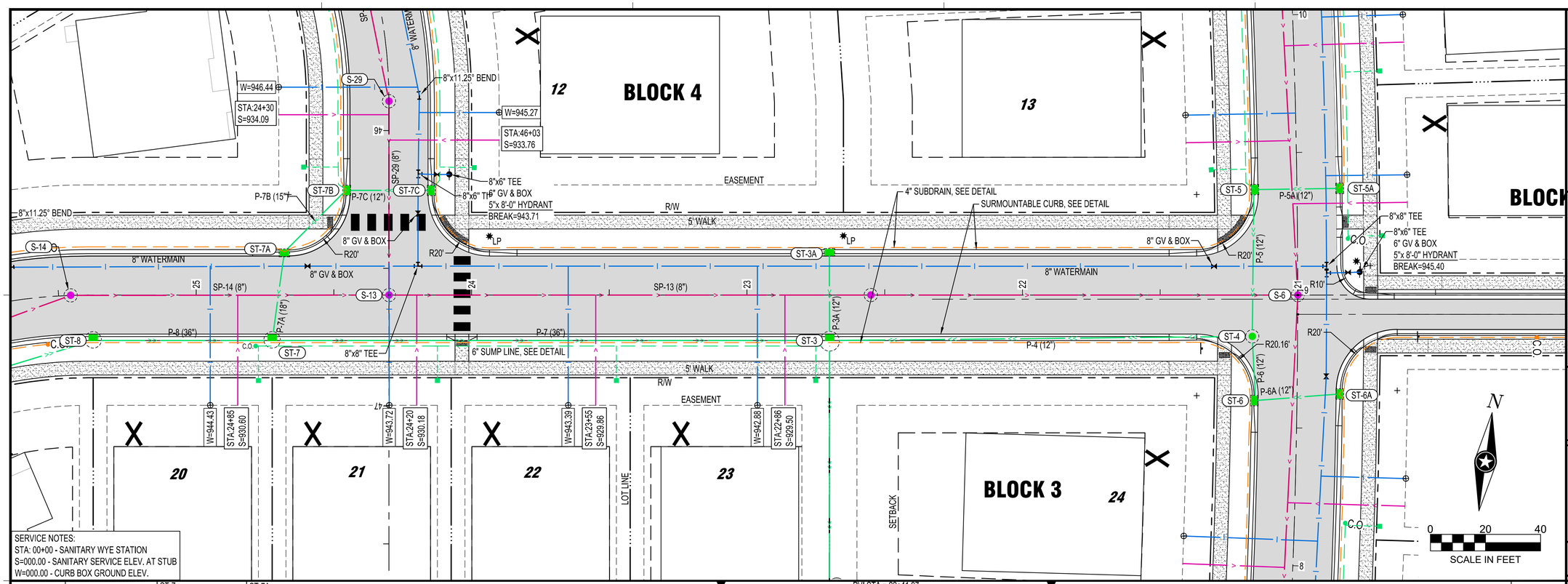
PLANNED STREET AND UTIILITY CONSTRUCTION (SUGAR MAPLE RIGHT OUT)

SHEET

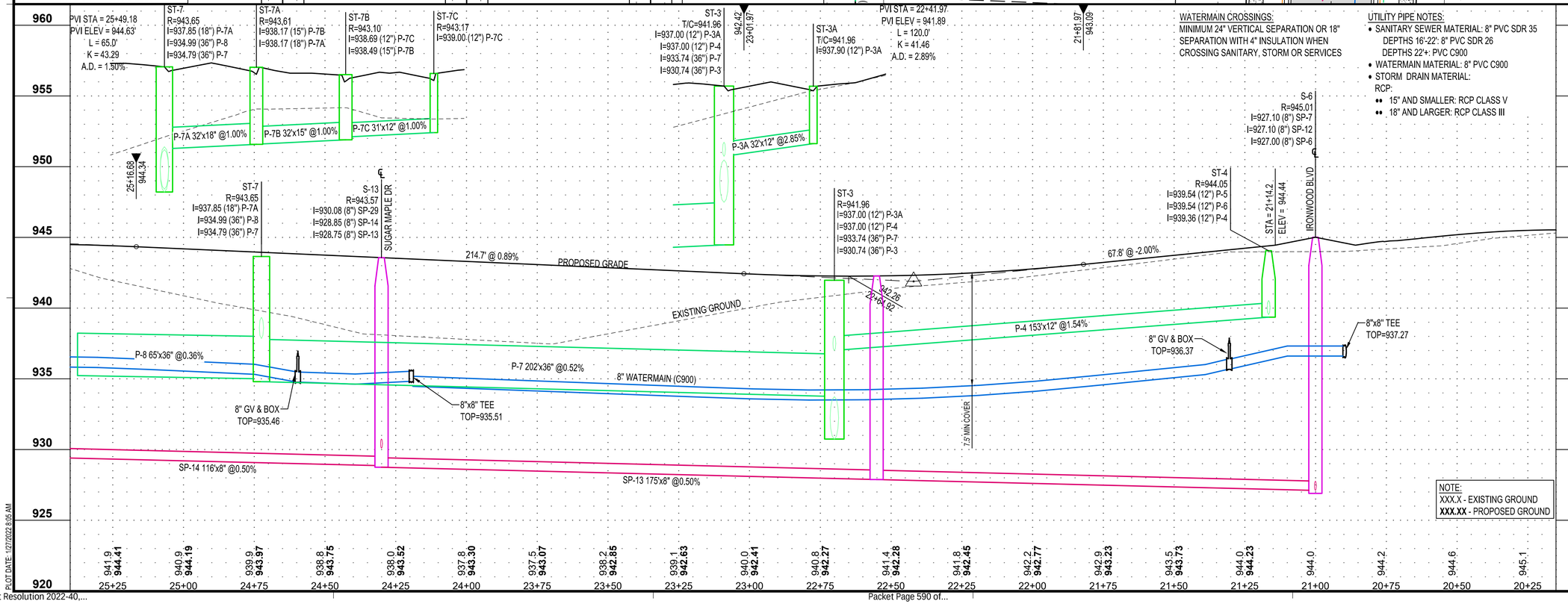
40 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/27/2022 8:05 AM



SERVICE NOTES:
STA: 00+00 - SANITARY WYE STATION
S=000.00 - SANITARY SERVICE ELEV. AT STUB
W=000.00 - CURB BOX GROUND ELEV.



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

NOTE:
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JERREMY D. FOSS
DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PROF SUGAR MAPLE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

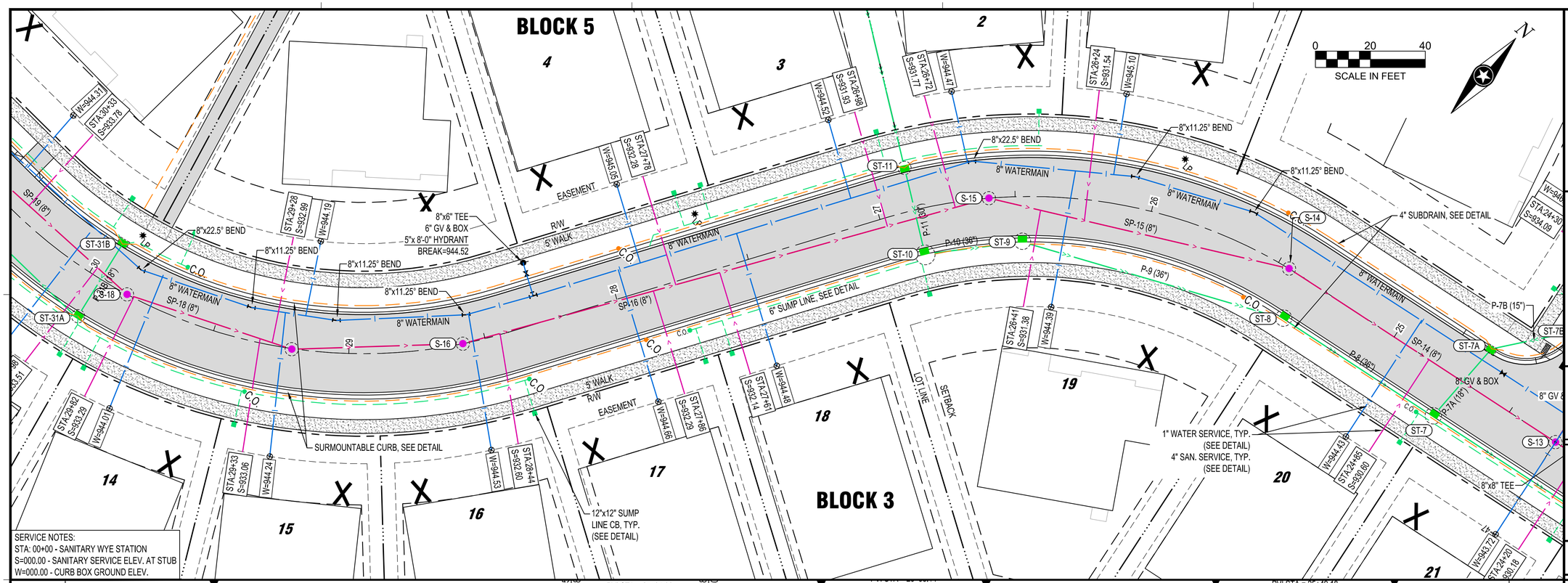
PLANNED STREET AND UTIILITY CONSTRUCTION (SUGAR MAPLE)

SHEET

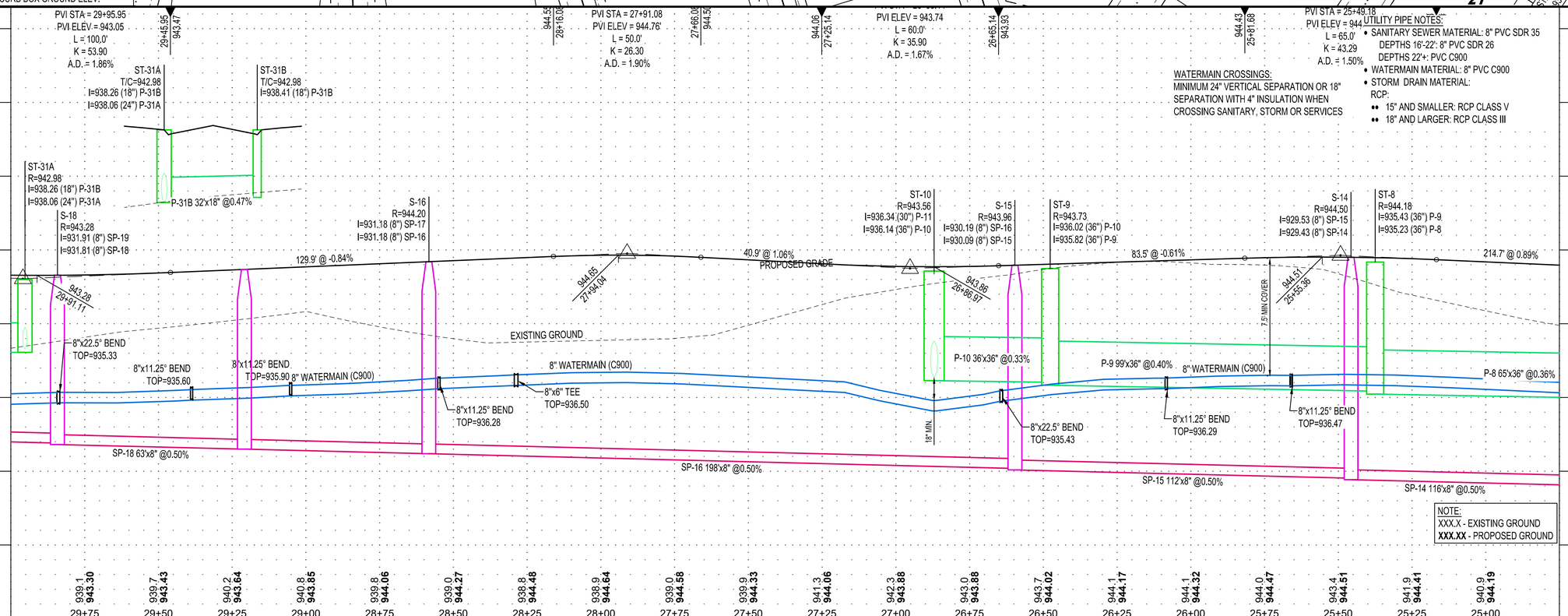
41 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE - 1/27/2022 8:05 AM



SERVICE NOTES:
STA: 00+00 - SANITARY WYE STATION
S=000.00 - SANITARY SERVICE ELEV. AT STUB
W=000.00 - CURB BOX GROUND ELEV.



WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES

UTILITY PIPE NOTES:
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III

NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 PROF SUGAR MAPLE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

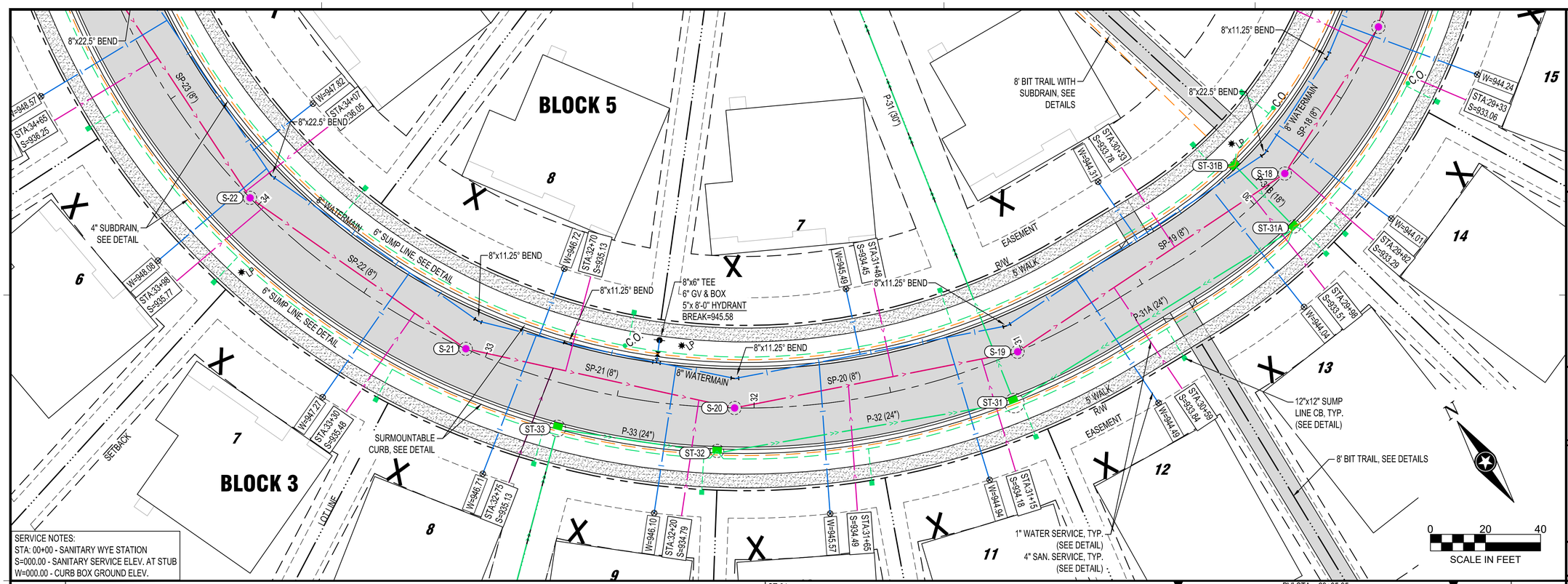
PLANNED STREET AND UTIILITY CONSTRUCTION (SUGAR MAPLE)

SHEET

42 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

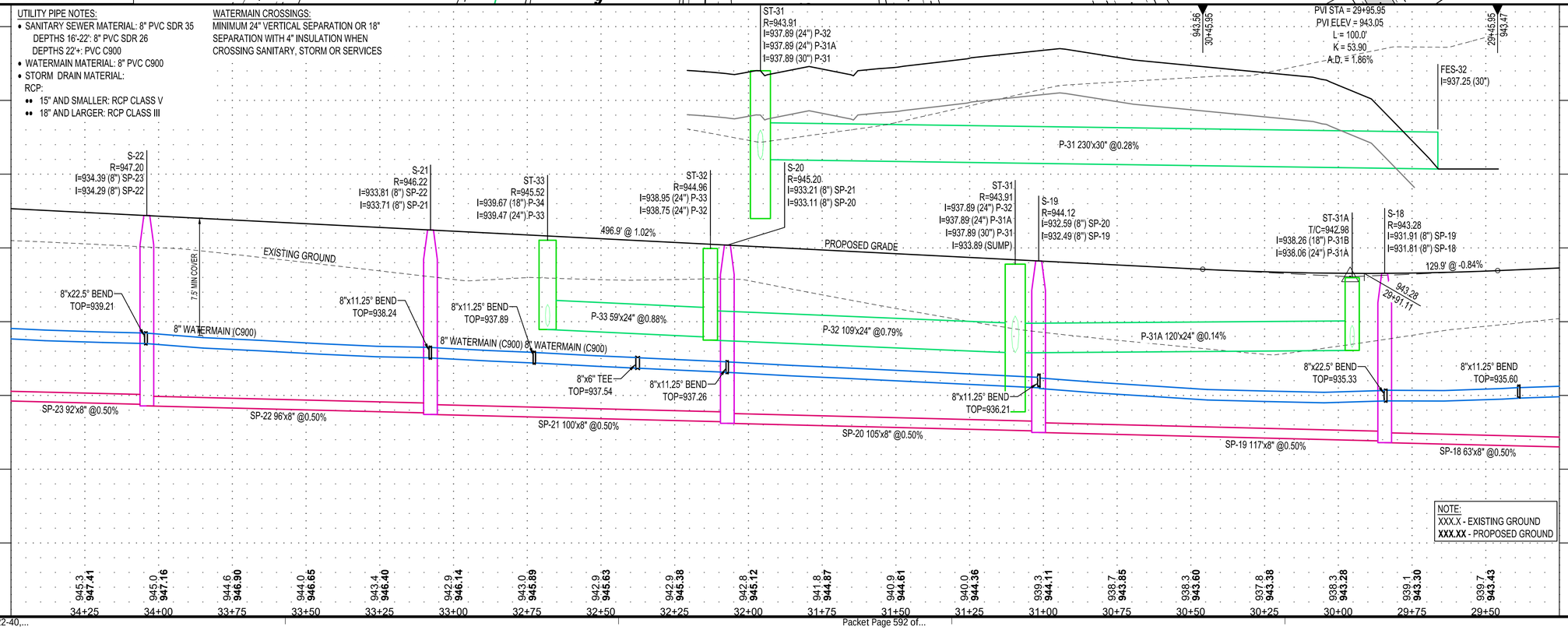
PLOT DATE: 1/27/2022 8:05 AM



SERVICE NOTES:
STA: 00+00 - SANITARY WYE STATION
S=000.00 - SANITARY SERVICE ELEV. AT STUB
W=000.00 - CURB BOX GROUND ELEV.

UTILITY PIPE NOTES:
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III

WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

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PROJECT
LENNAR
RESERVE AT AUTUMN WOODS
CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

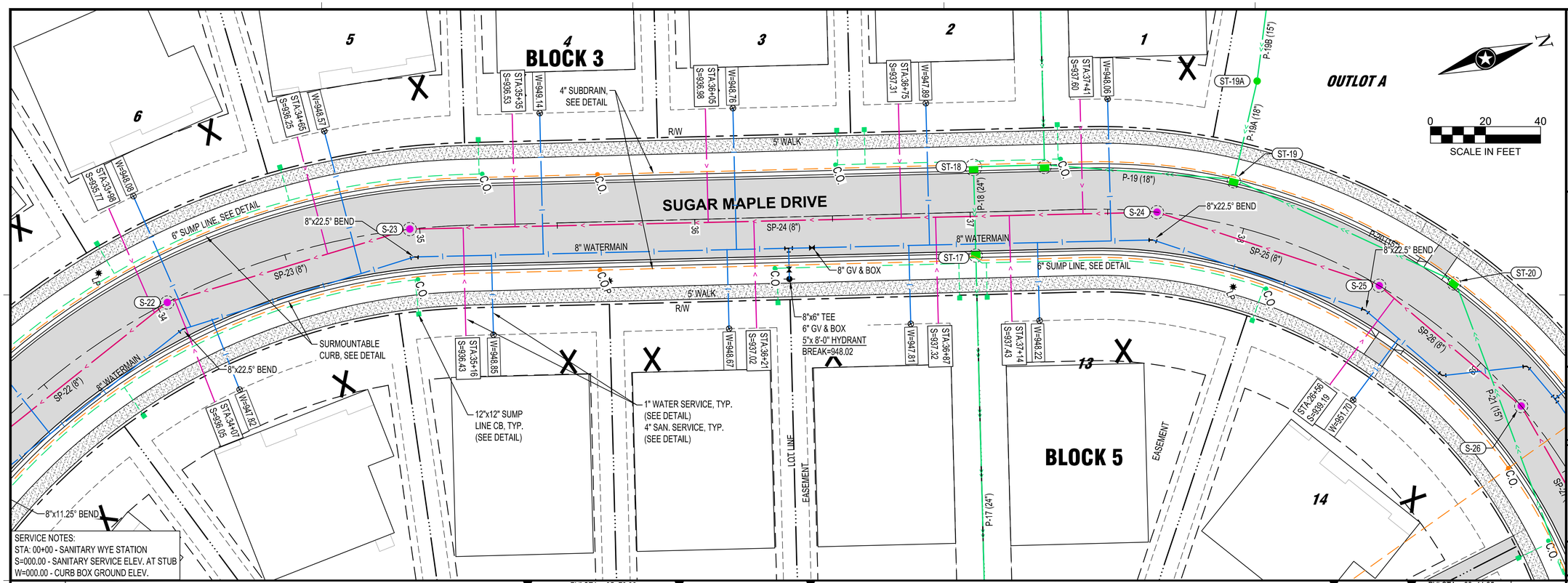
PROJECT NO.	21-24984
FILE NAME	24984 PROF SUGAR MAPLE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE
PLANNED STREET AND UTIILITY CONSTRUCTION (SUGAR MAPLE)

SHEET
43 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

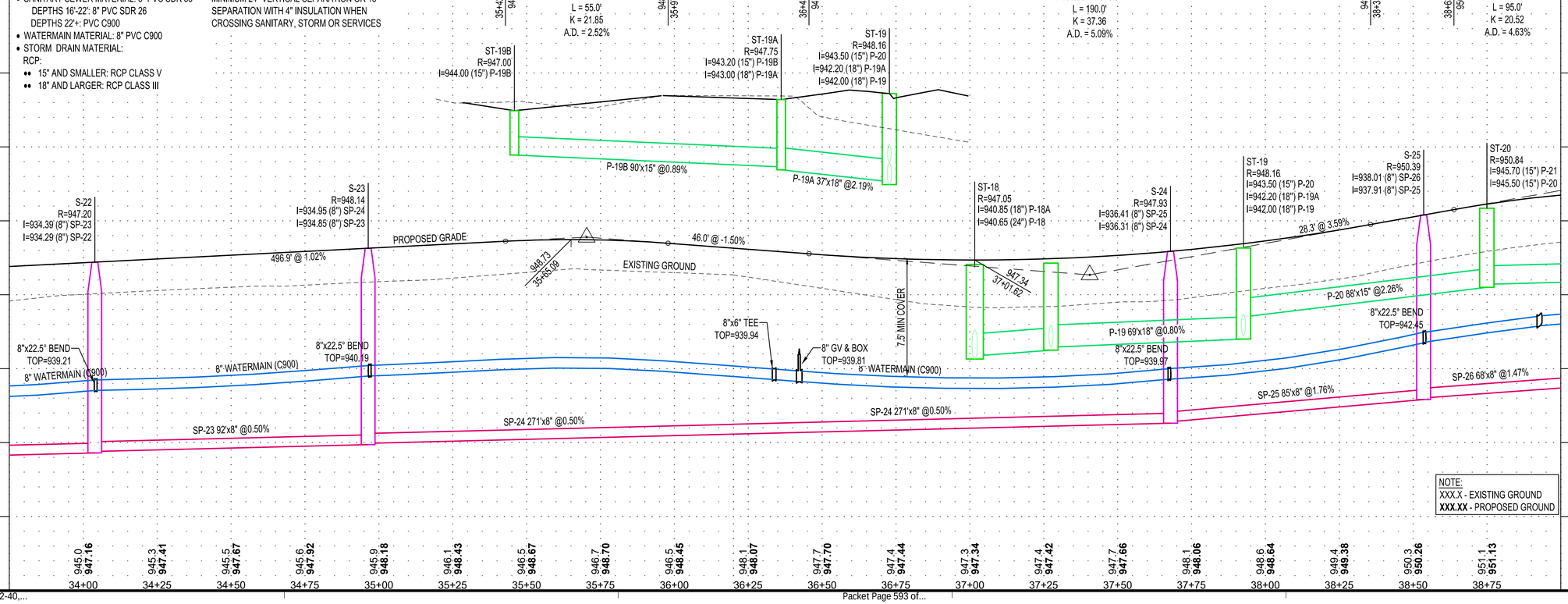
PLOT DATE - 1/27/2022 8:05 AM



SERVICE NOTES:
STA: 00+00 - SANITARY WYE STATION
S=000.00 - SANITARY SERVICE ELEV. AT STUB
W=000.00 - CURB BOX GROUND ELEV.

UTILITY PIPE NOTES:
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III

WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES



ISG

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PROJECT
LENNAR
RESERVE AT AUTUMN WOODS
CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

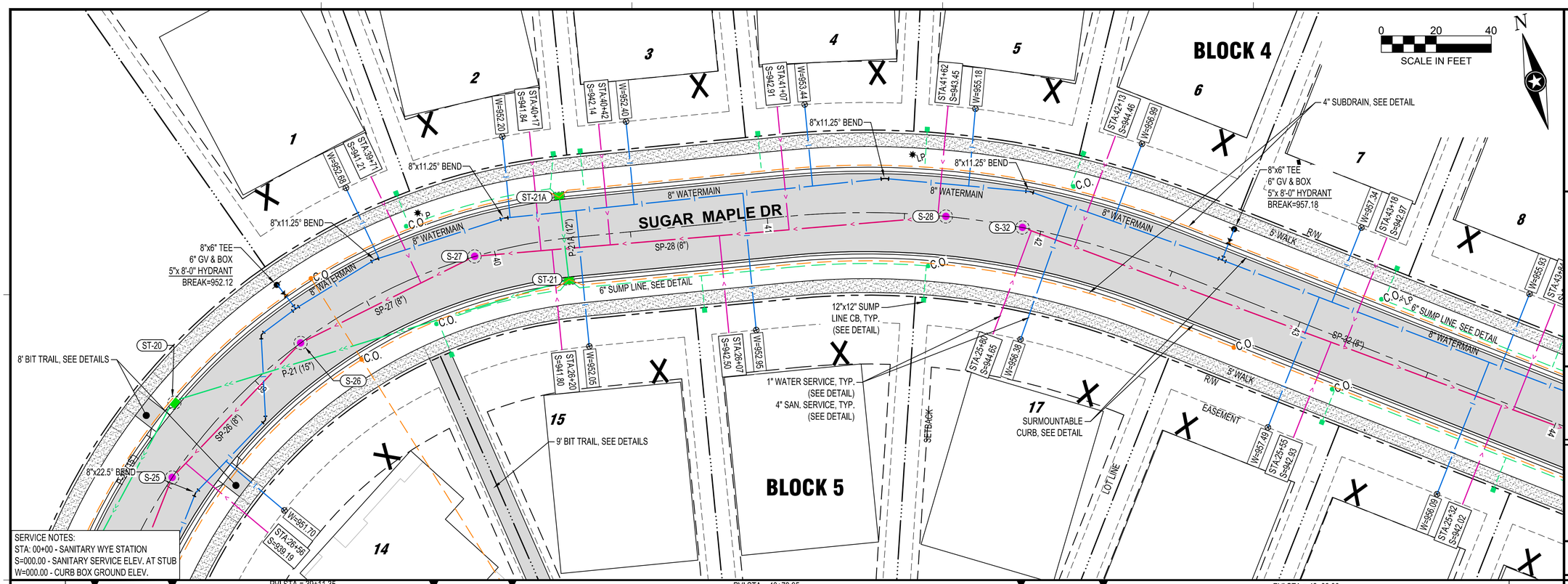
PROJECT NO.	21-24984
FILE NAME	24984 PROF SUGAR MAPLE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE
PLANNED STREET AND UTIILITY CONSTRUCTION (SUGAR MAPLE)

SHEET
44
OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/27/2022 8:05 AM



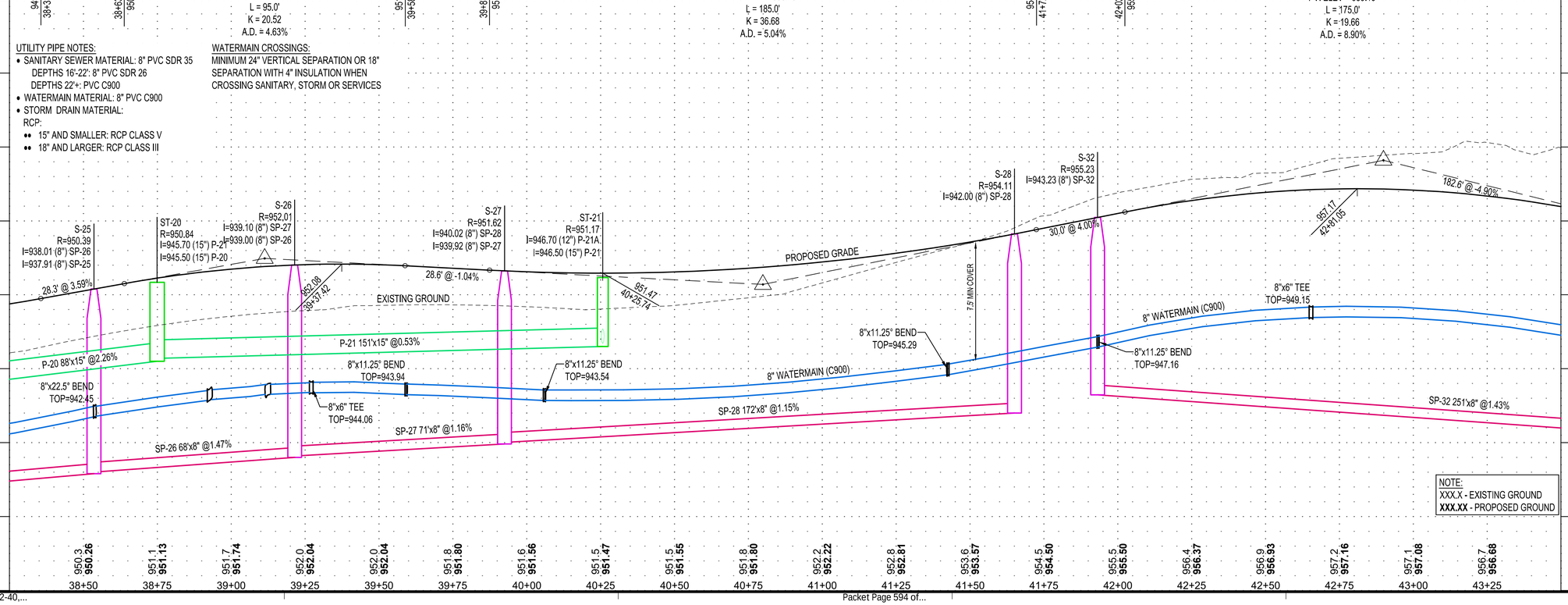
PVI STA = 39+11.35
PVI ELEV = 952.46'
L = 95.0'
K = 20.52
A.D. = 4.63%

PVI STA = 40+79.95
PVI ELEV = 950.70
L = 185.0'
K = 36.68
A.D. = 5.04%

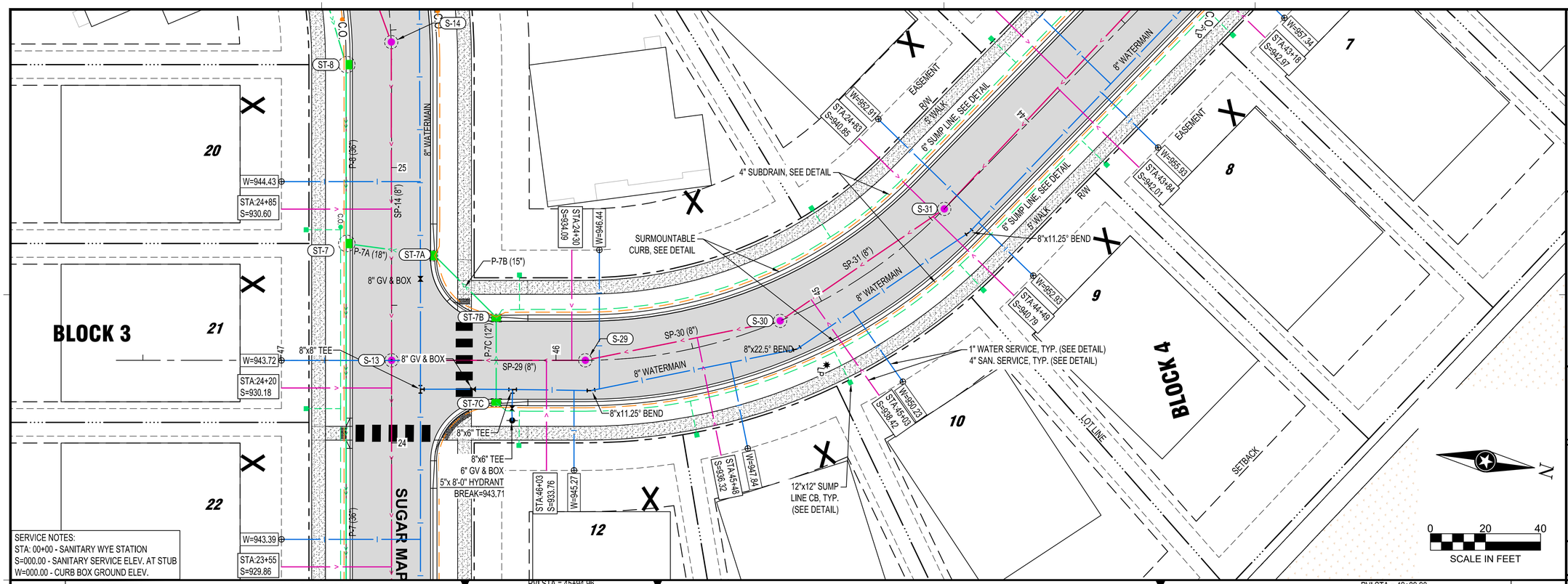
PVI STA = 42+89.90
PVI ELEV = 959.10'
L = 175.0'
K = 19.66
A.D. = 8.90%

UTILITY PIPE NOTES:
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III

WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES



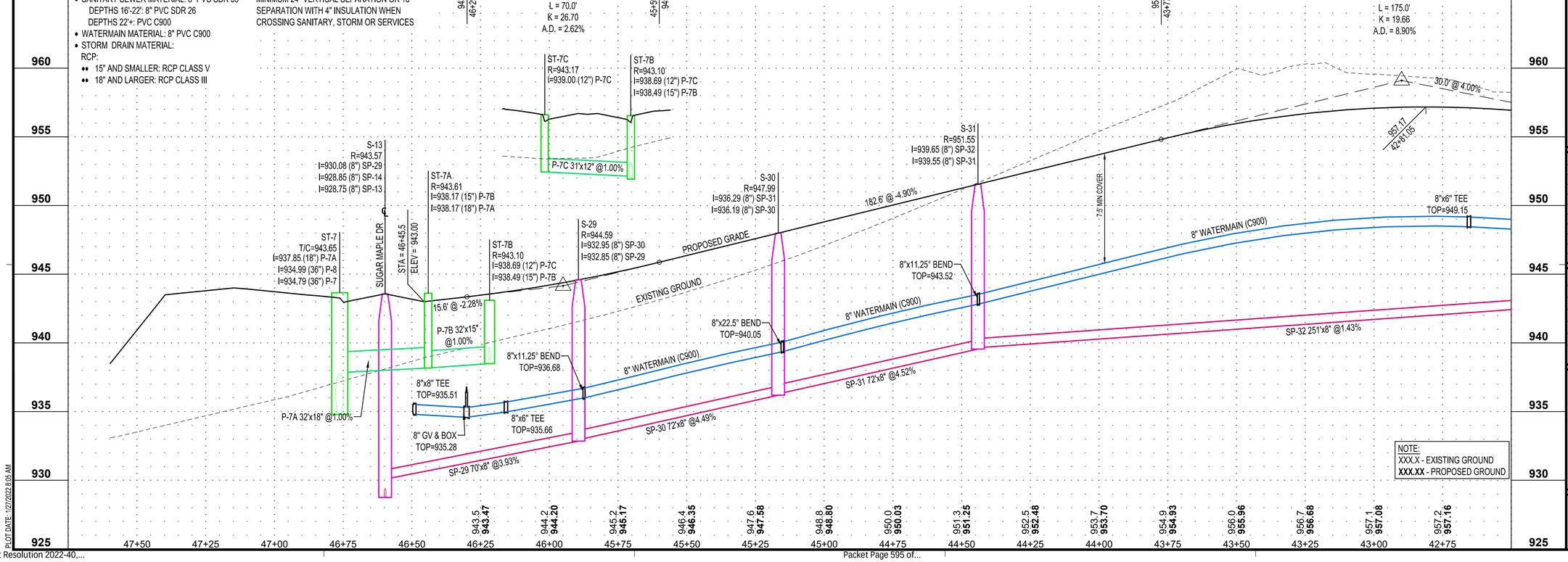
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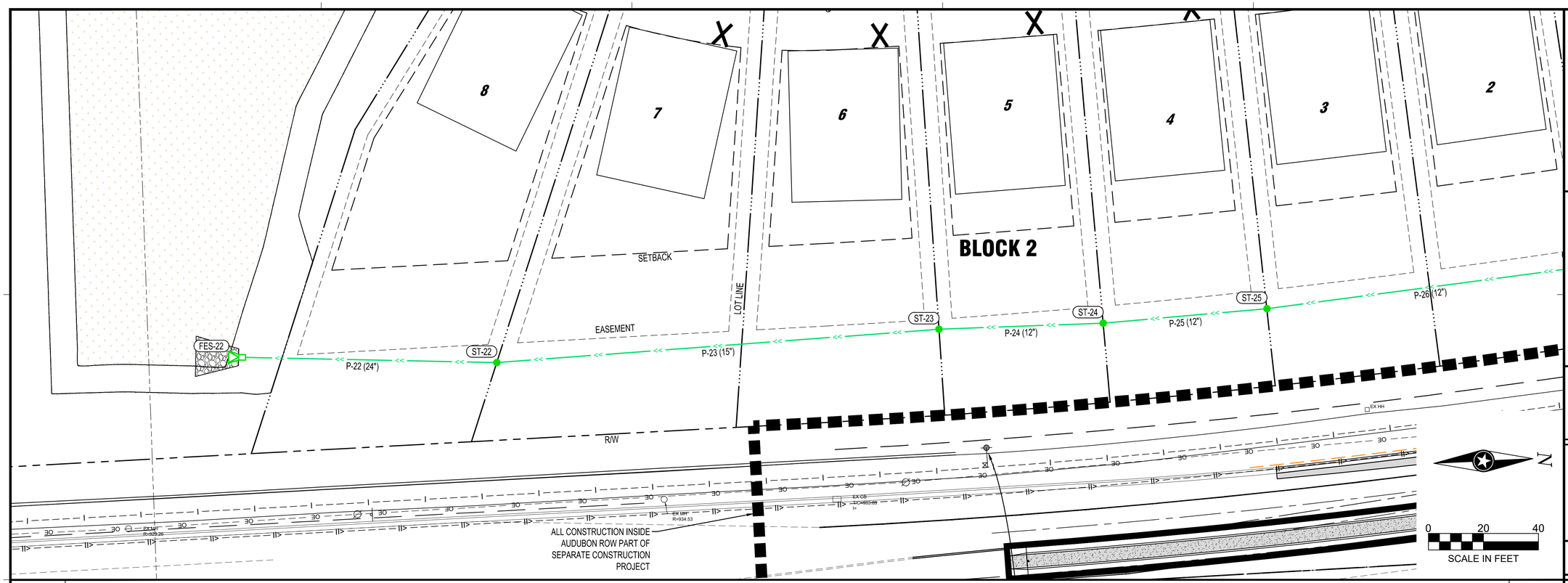
SERVICE NOTES:
STA: 00+00 - SANITARY WYE STATION
S=000.00 - SANITARY SERVICE ELEV. AT STUB
W=000.00 - CURB BOX GROUND ELEV.

UTILITY PIPE NOTES:
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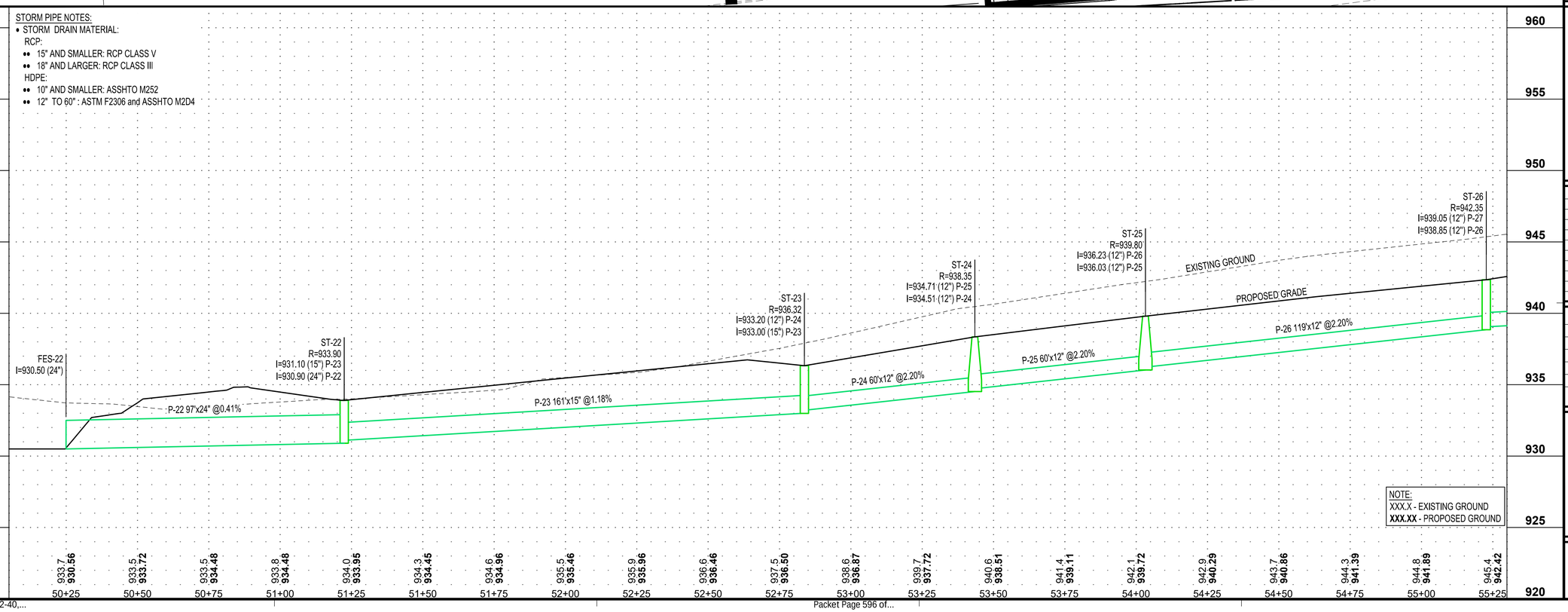
WATERMAIN CROSSINGS:
MINIMUM 24" VERTICAL SEPARATION OR 18" SEPARATION WITH 4" INSULATION WHEN CROSSING SANITARY, STORM OR SERVICES



| | | |



STORM PIPE NOTES:
- STORM DRAIN MATERIAL:
  - RCP:
    - 15" AND SMALLER: RCP CLASS V
    - 18" AND LARGER: RCP CLASS III
  - HDPE:
    - 10" AND SMALLER: ASSHTO M252
    - 12" TO 60" : ASTM F2306 and ASSHTO M2D4



NOTE:
XXX.X - EXISTING GROUND
XXX.XX - PROPOSED GROUND

PLOT DATE: 11/15/2021 5:20 PM

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JERREMY D. FOSS

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	23476 PROF AUDUBON BACKYARD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

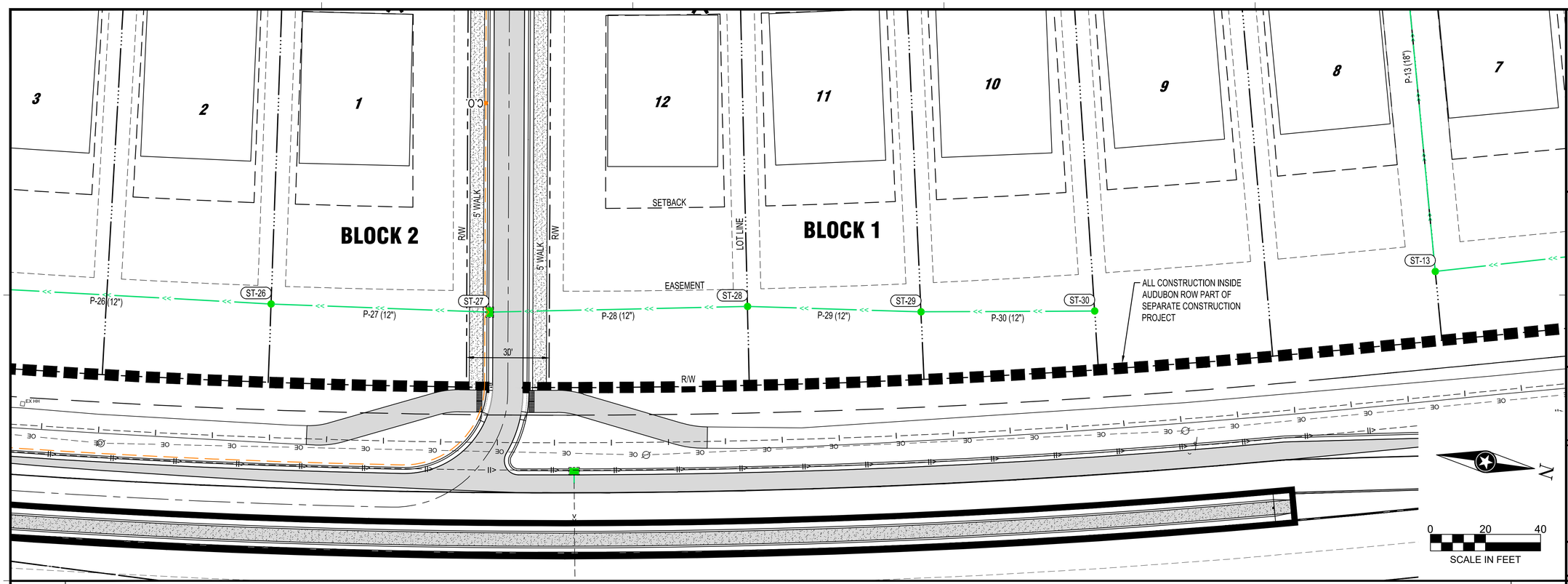
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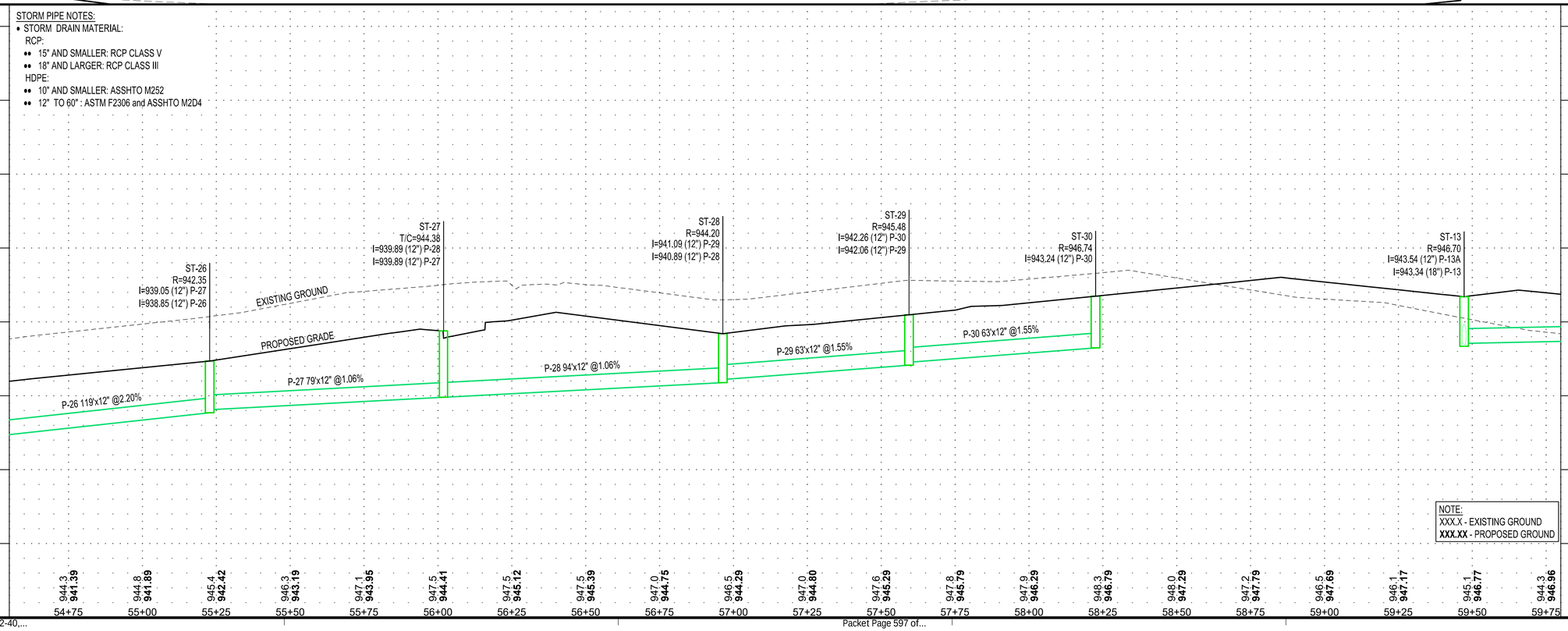
PLANNED STORM CONSTRUCTION (AUDUBON BACKYARDS)

SHEET

47 OF 76

PRELIMINARY NOT FOR CONSTRUCTION





PLOT DATE: 11/15/2021 5:20 PM

ISG

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RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

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FILE NAME	23476 PROF AUDUBON BACKYARD
DRAWN BY	JRS
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ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

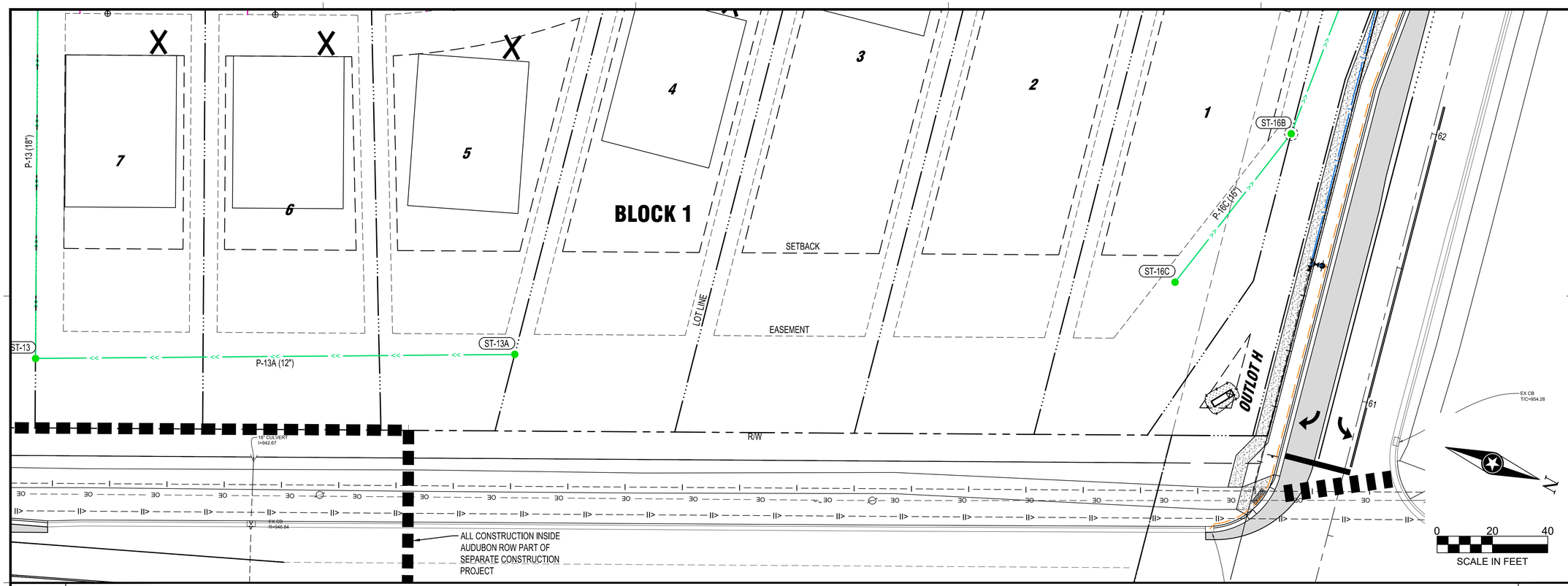
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PLANNED STORM CONSTRUCTION (AUDUBON BACKYARDS)

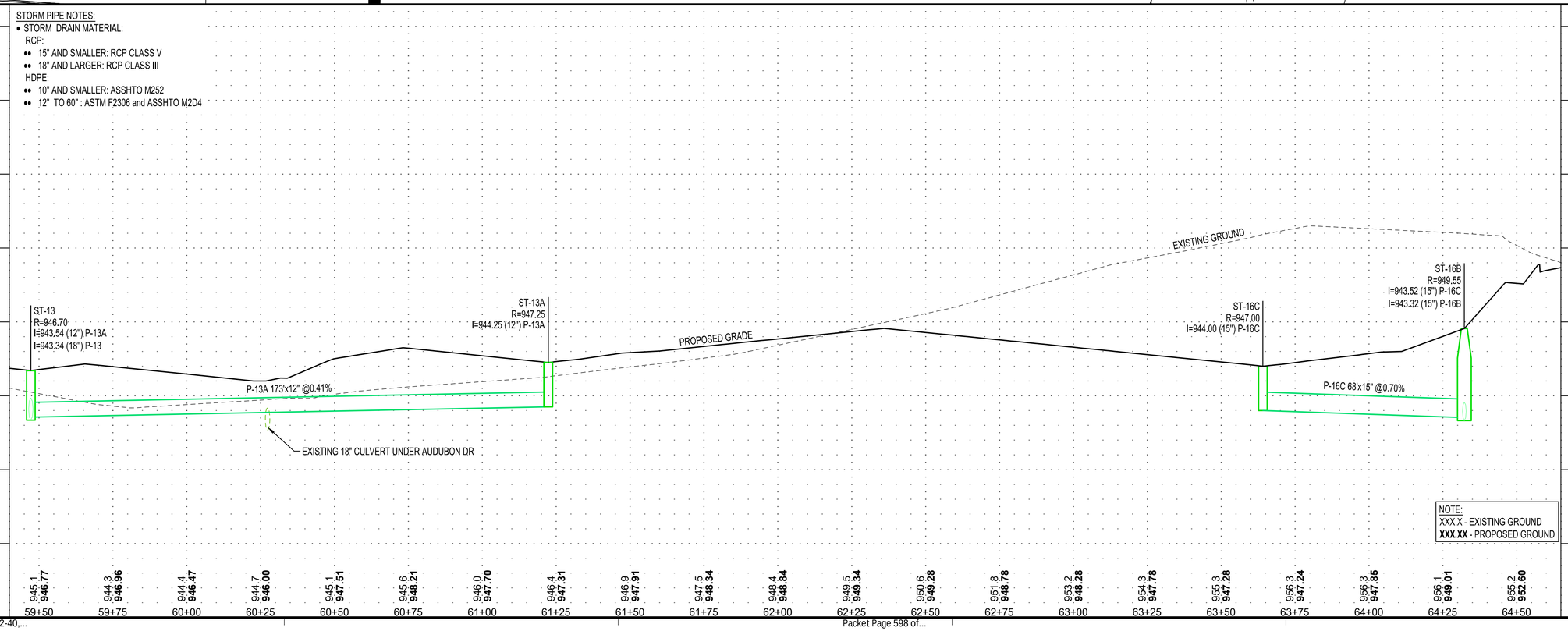
SHEET

48 OF 76

PRELIMINARY NOT FOR CONSTRUCTION



STORM PIPE NOTES:
- STORM DRAIN MATERIAL:
  - RCP:
    - 15" AND SMALLER: RCP CLASS V
    - 18" AND LARGER: RCP CLASS III
  - HDPE:
    - 10" AND SMALLER: ASSHTO M252
    - 12" TO 60" : ASTM F2306 and ASSHTO M2D4



NOTE:
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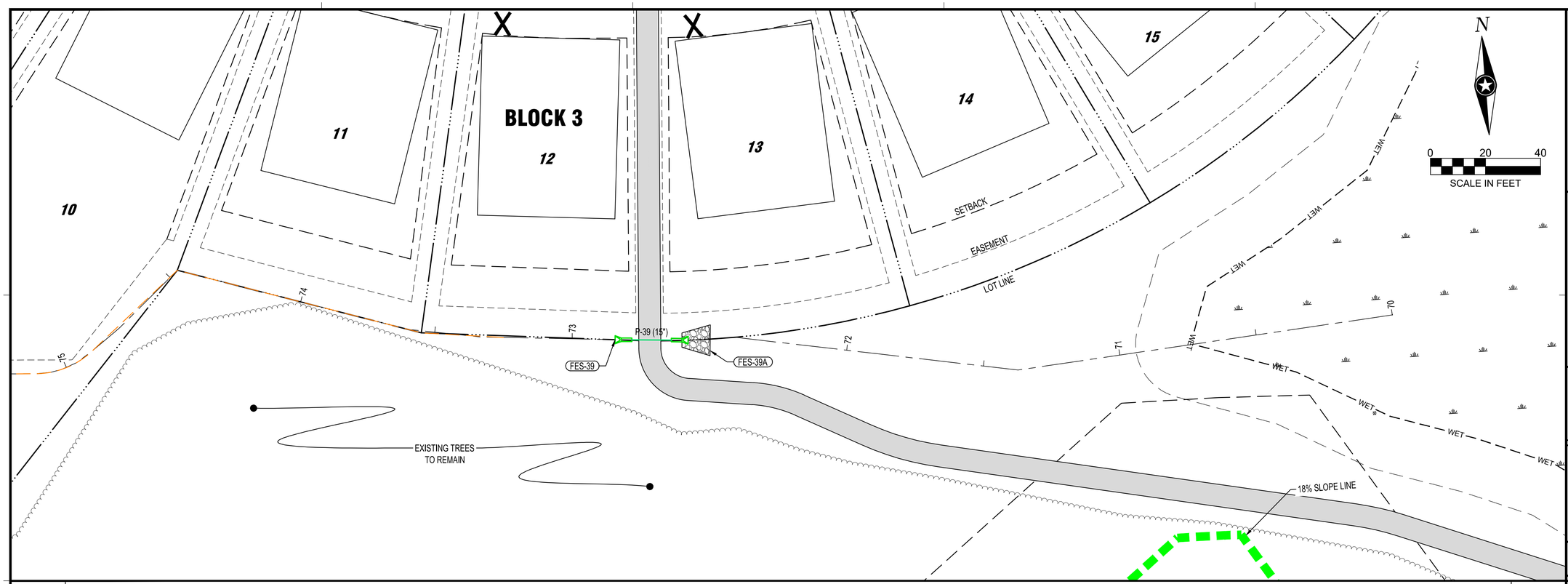
PLANNED STORM CONSTRUCTION (AUDUBON BACKYARDS)

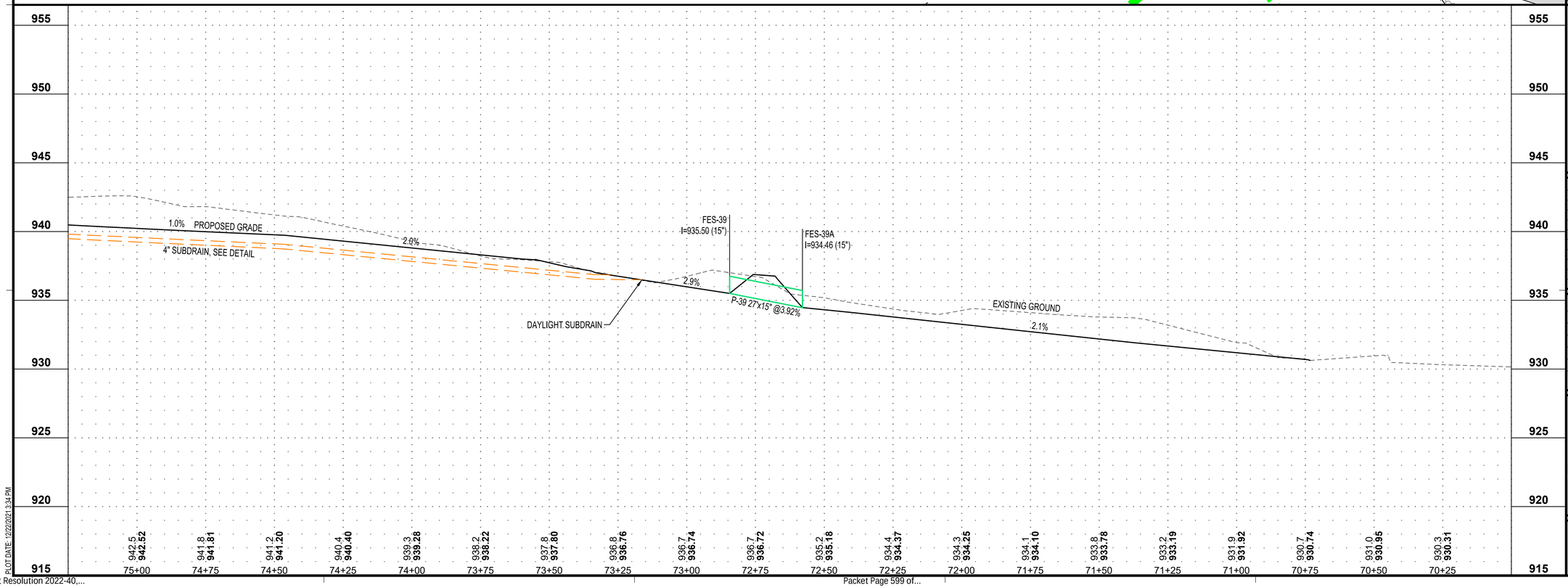
SHEET

49 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 11/15/2021 5:20 PM





PLOT DATE: 12/22/2021 3:34 PM

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LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	23476 PROF WEST BACKYARD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

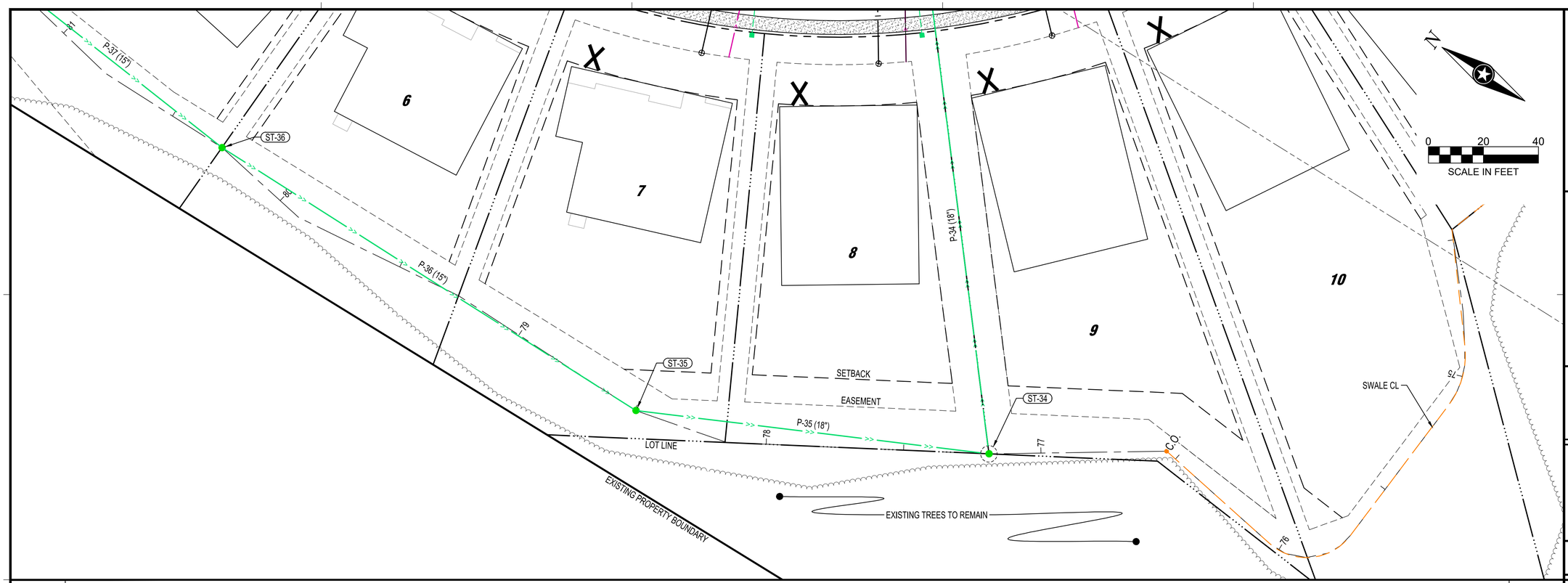
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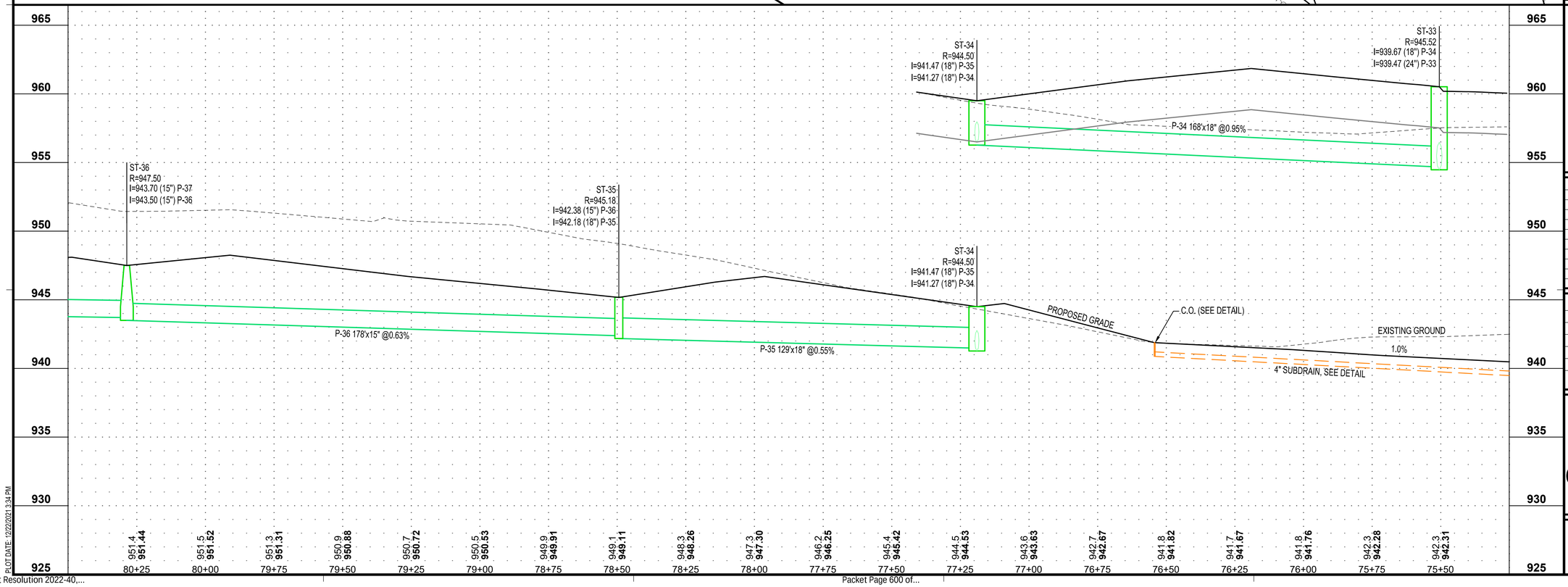
PLANNED STORM CONSTRUCTION (WEST BACKYARDS)

SHEET

50 OF 76

PRELIMINARY NOT FOR CONSTRUCTION





PLOT DATE: 12/22/2021 3:34 PM

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FILE NAME	23476 PROF WEST BACKYARD
DRAWN BY	JRS
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ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

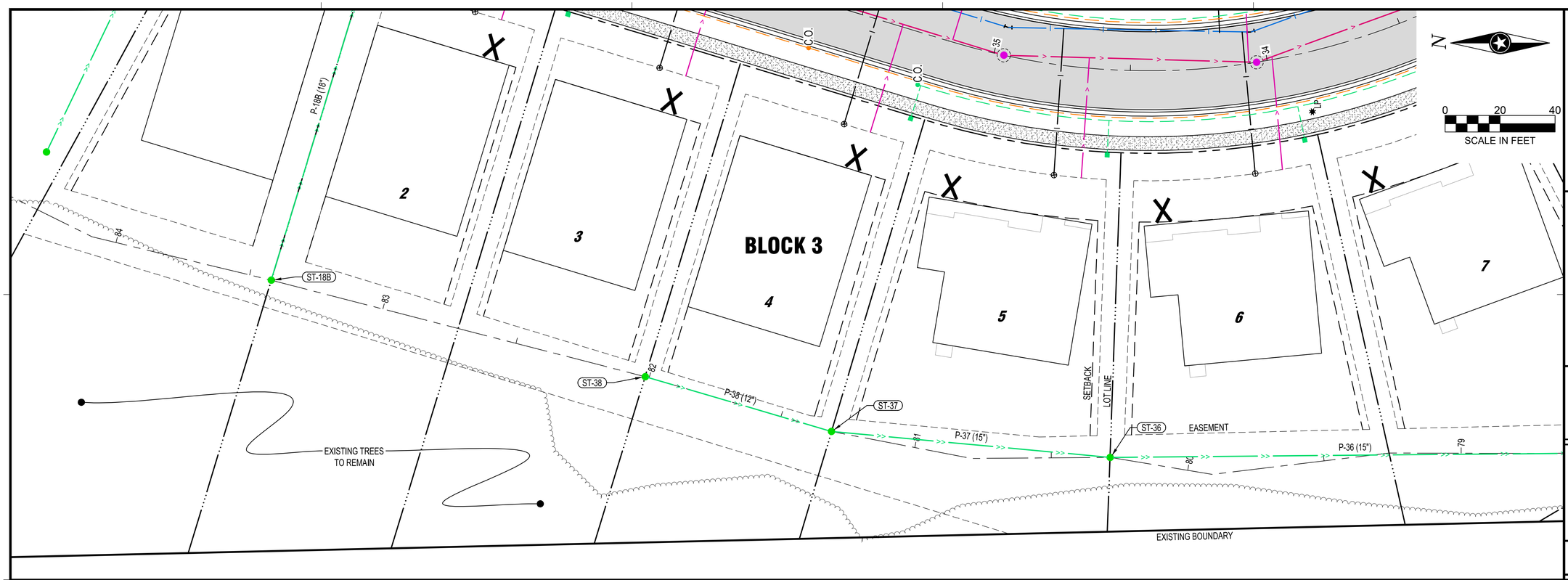
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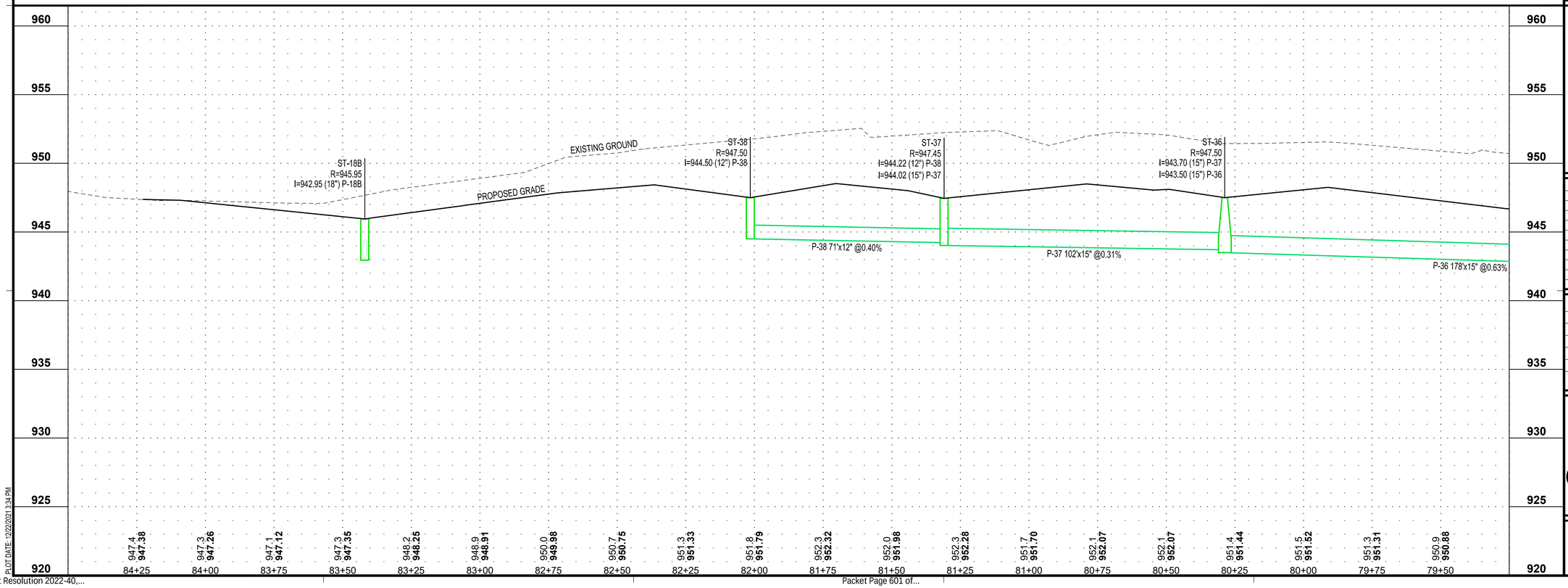
PLANNED STORM CONSTRUCTION (WEST BACKYARDS)

SHEET

51 OF 76

PRELIMINARY NOT FOR CONSTRUCTION





ISG

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JERREMY D. FOSS

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	23476 PROF WEST BACKYARD
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

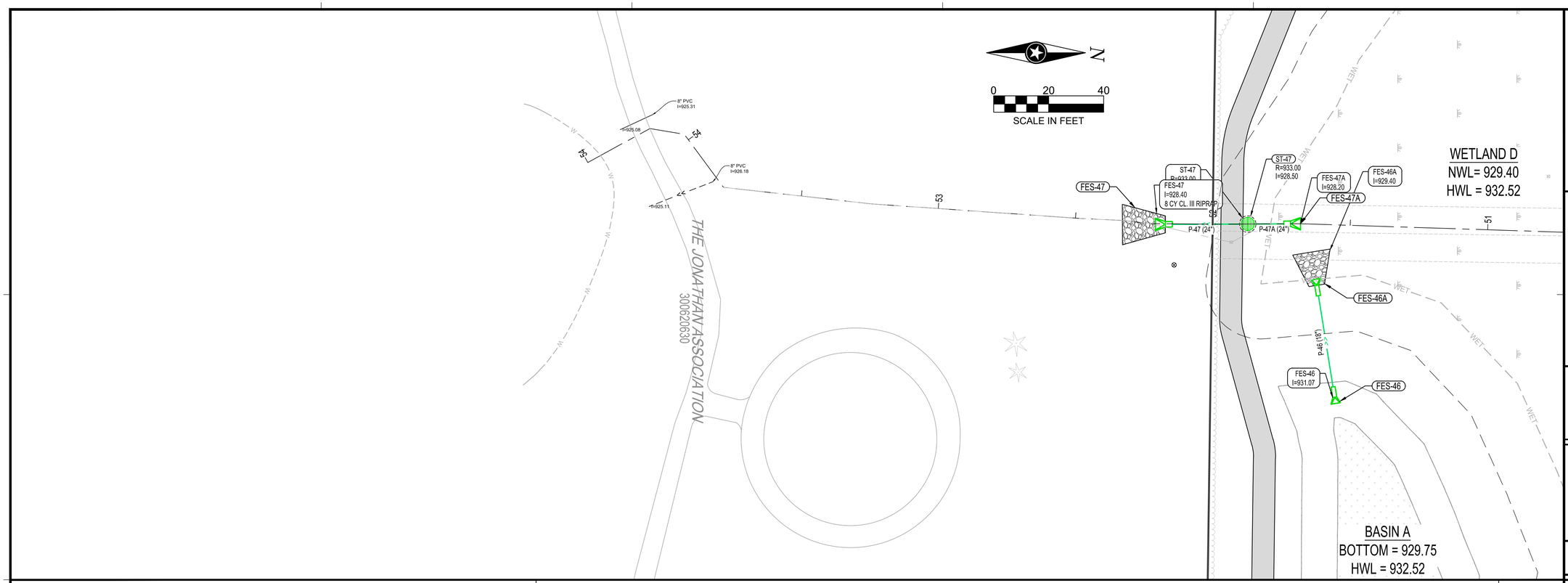
PLANNED STORM CONSTRUCTION (WEST BACKYARDS)

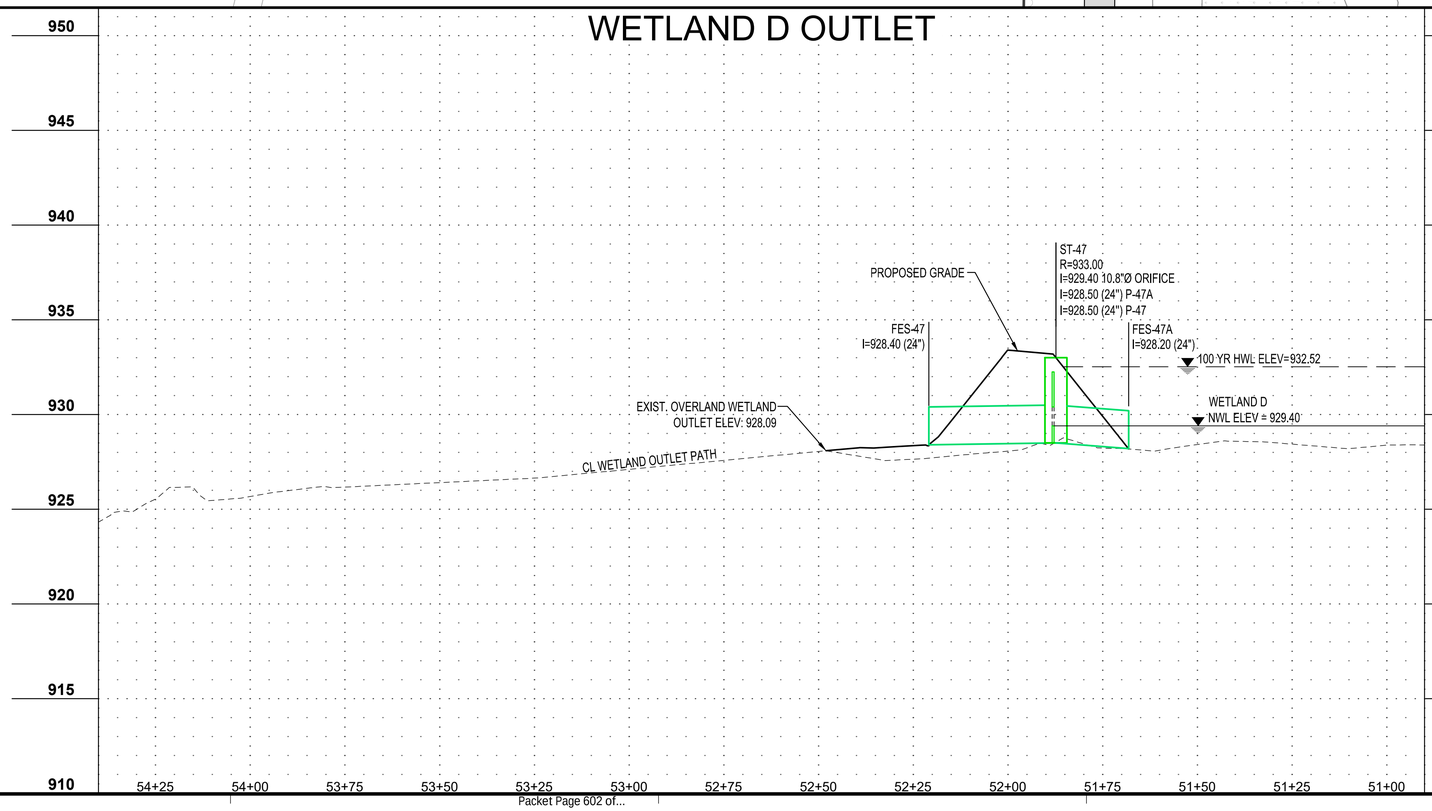
SHEET

52 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/22/2021 1:34 PM





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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 STORM DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

PLANNED WETLAND D STORM OUTLET

SHEET

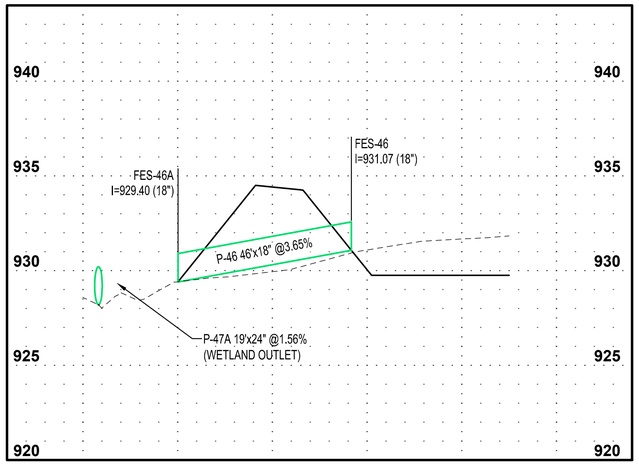
53 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

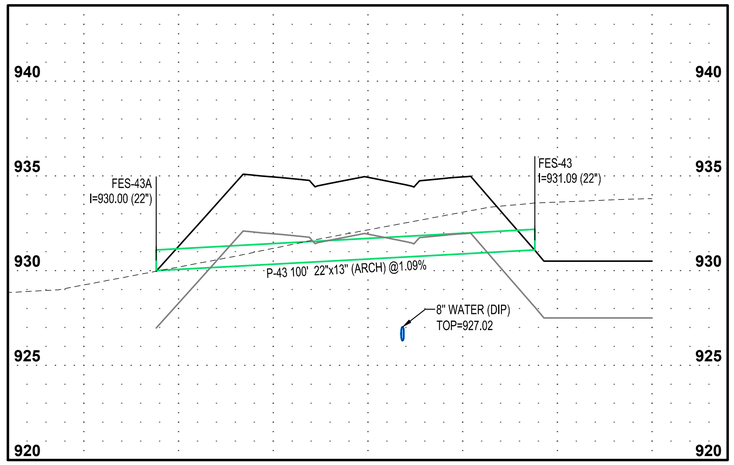
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UTILITY PIPE NOTES:

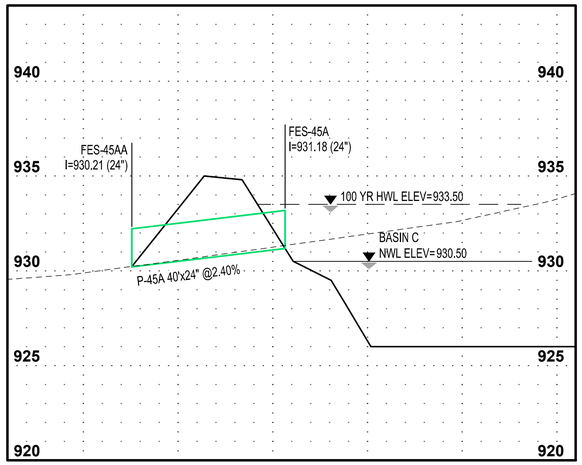
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III



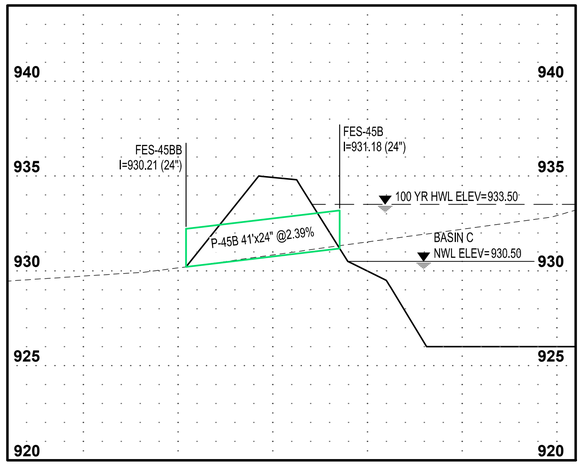
BASIN A OUTLET



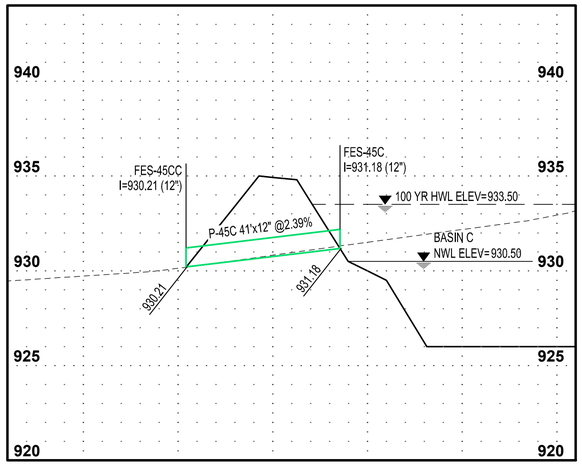
BASIN B OUTLET (IRONWOOD BLVD)



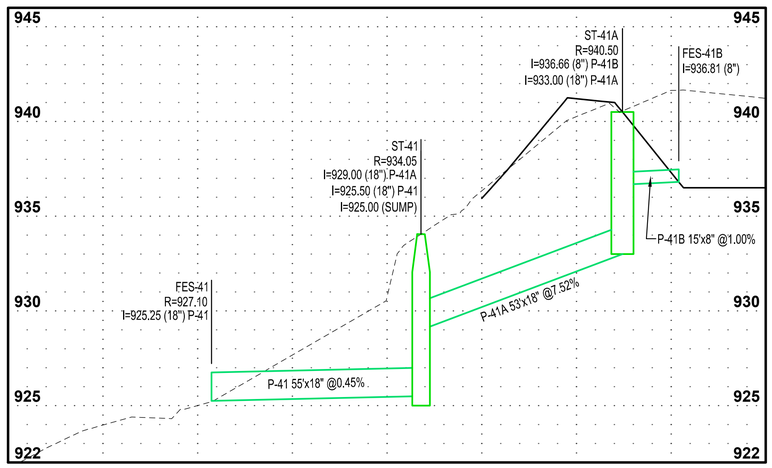
BASIN C OUTLET 1



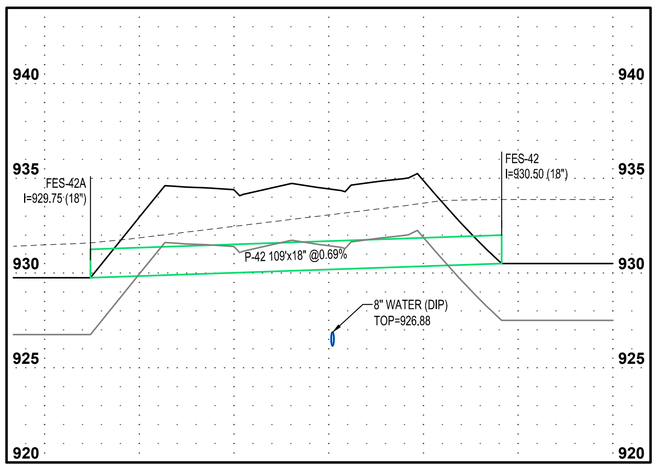
BASIN C OUTLET 2



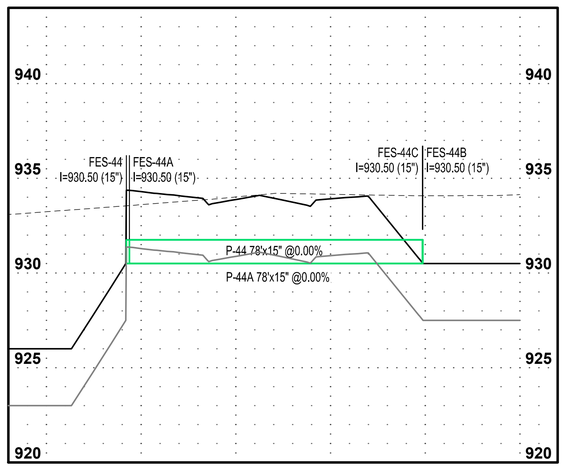
BASIN C OUTLET 3



BASIN F OUTLET



BASIN A-B STORM CROSSOVER (IRONWOOD BLVD)



BASIN C TO B STORM (IRONWOOD BLVD)

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	23476 PROF DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

STORM DRAIN DETAILS

SHEET

54

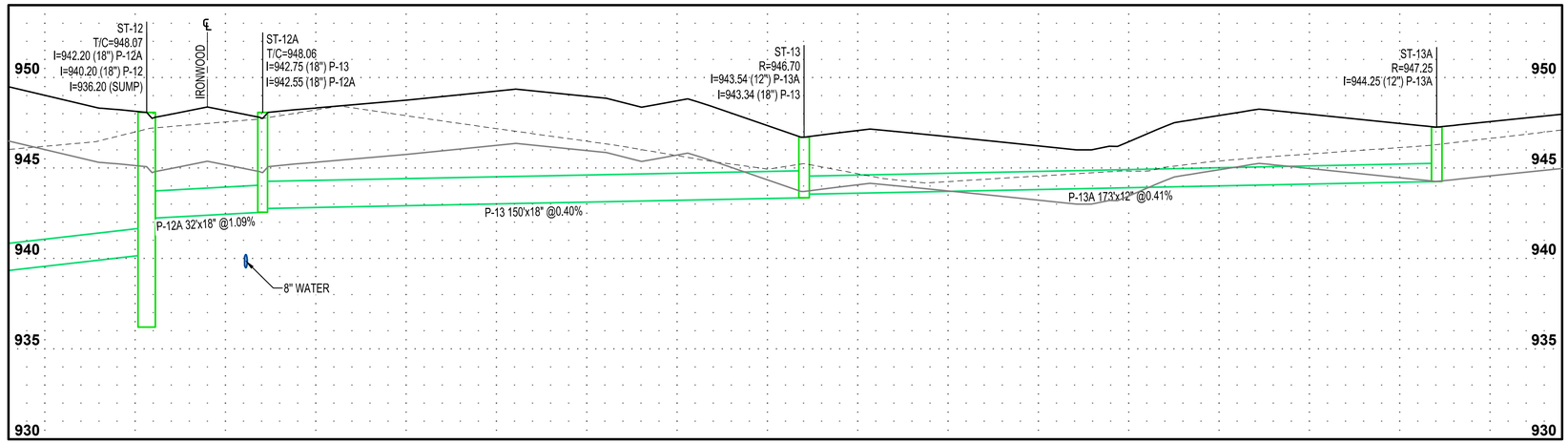
OF 76

PRELIMINARY NOT FOR CONSTRUCTION

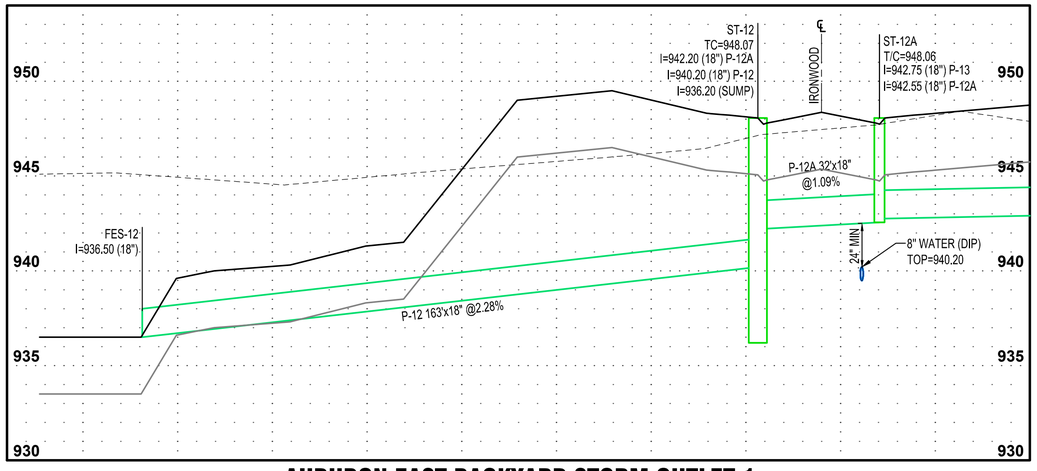
PLOT DATE: 11/18/2021 2:35 PM

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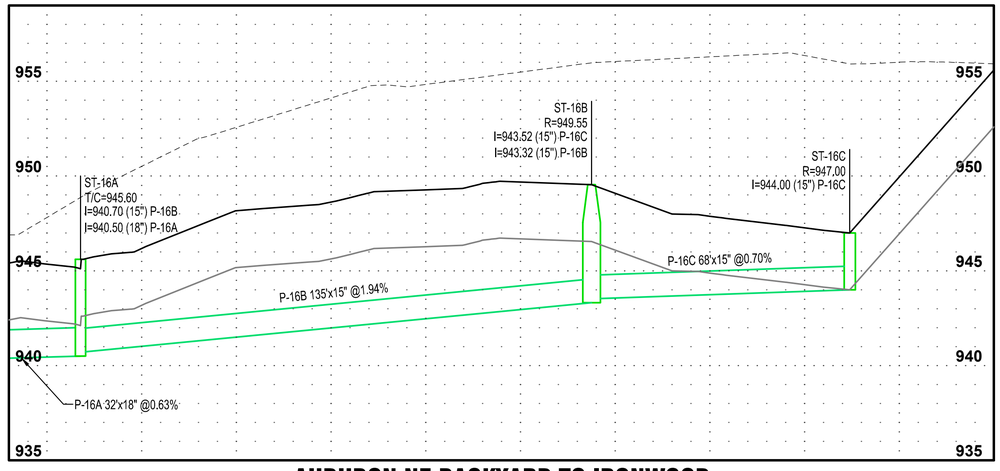
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III



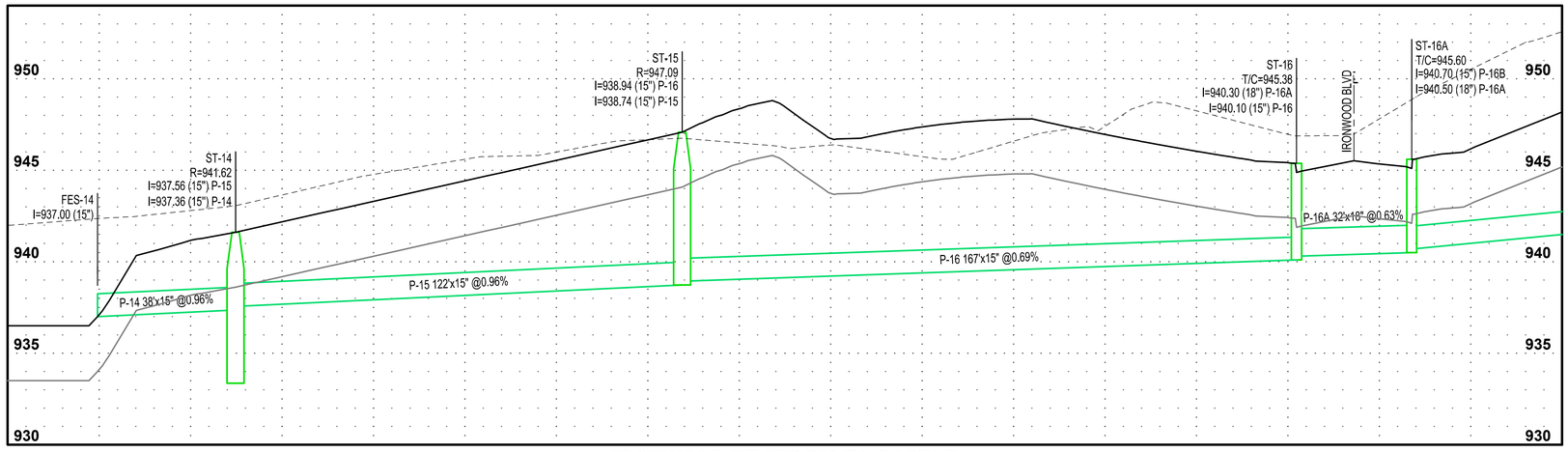
AUDUBON EAST BACKYARD STORM OUTLET 2



AUDUBON EAST BACKYARD STORM OUTLET 1



AUDUBON NE BACKYARD TO IRONWOOD



IRONWOOD NE STORM TO BASIN F

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	23476 PROF DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

STORM DRAIN DETAILS

SHEET

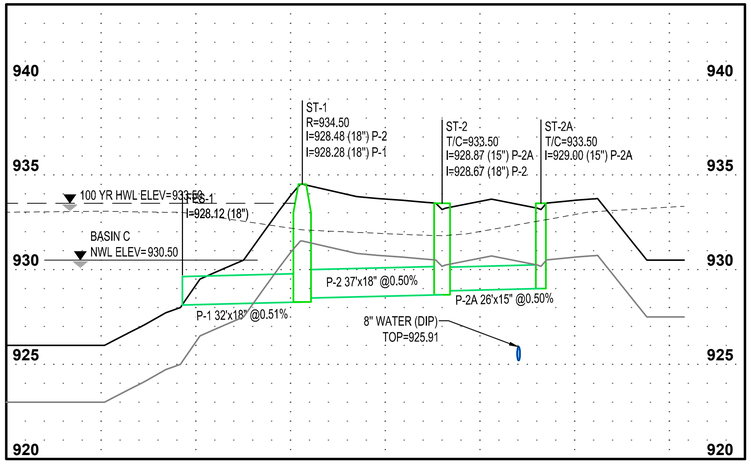
55 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

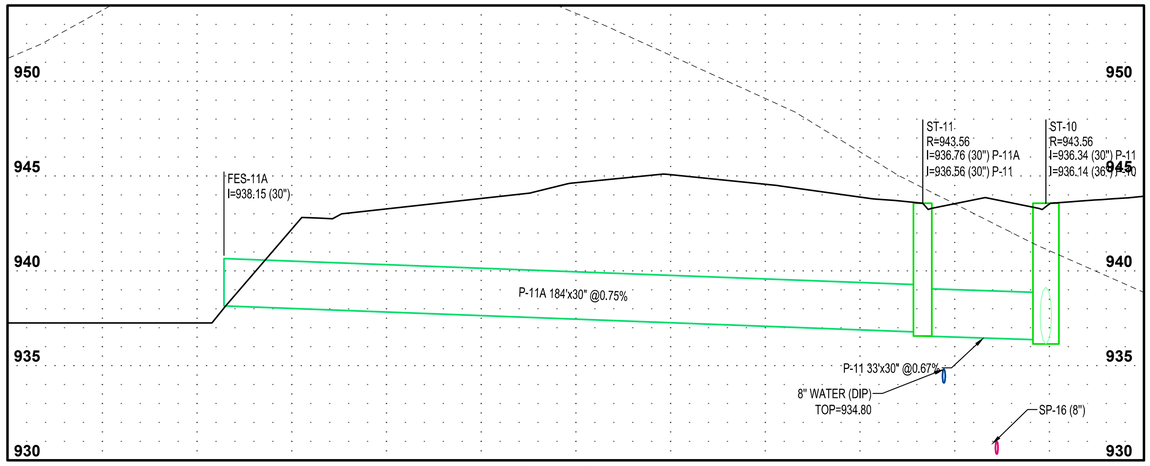
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UTILITY PIPE NOTES:

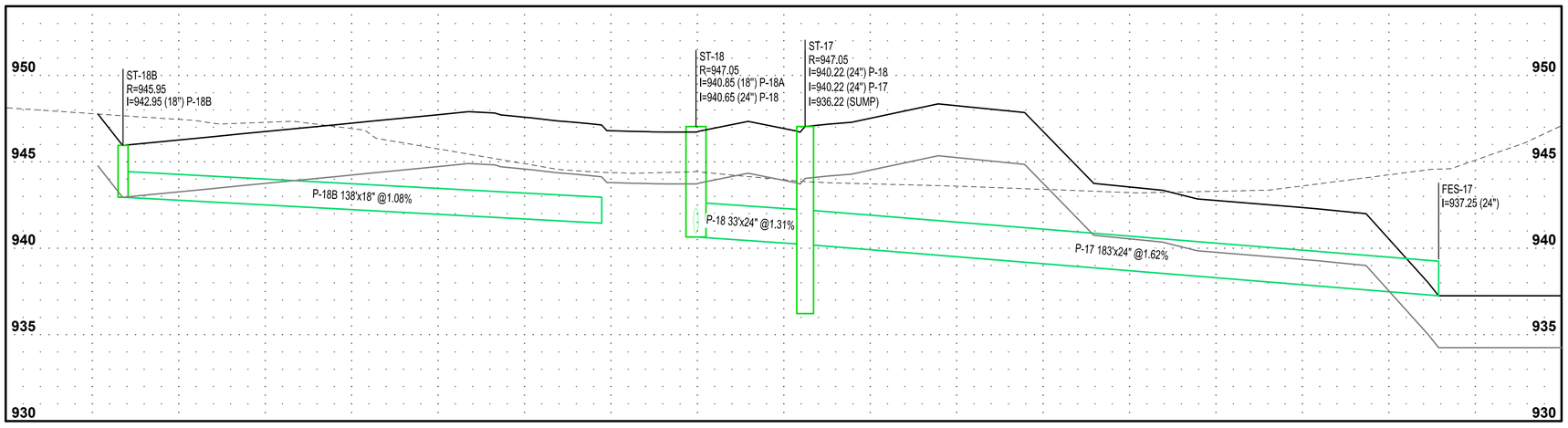
- SANITARY SEWER MATERIAL: 8" PVC SDR 35
  DEPTHS 16'-22': 8" PVC SDR 26
  DEPTHS 22'+: PVC C900
- WATERMAIN MATERIAL: 8" PVC C900
- STORM DRAIN MATERIAL:
  RCP:
  - 15" AND SMALLER: RCP CLASS V
  - 18" AND LARGER: RCP CLASS III



IRONWOOD BLVD SOUTH OUTLET



BASIN E OUTLET



NW BACKYARDS TO BASIN E

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	23476 PROF DETAILS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

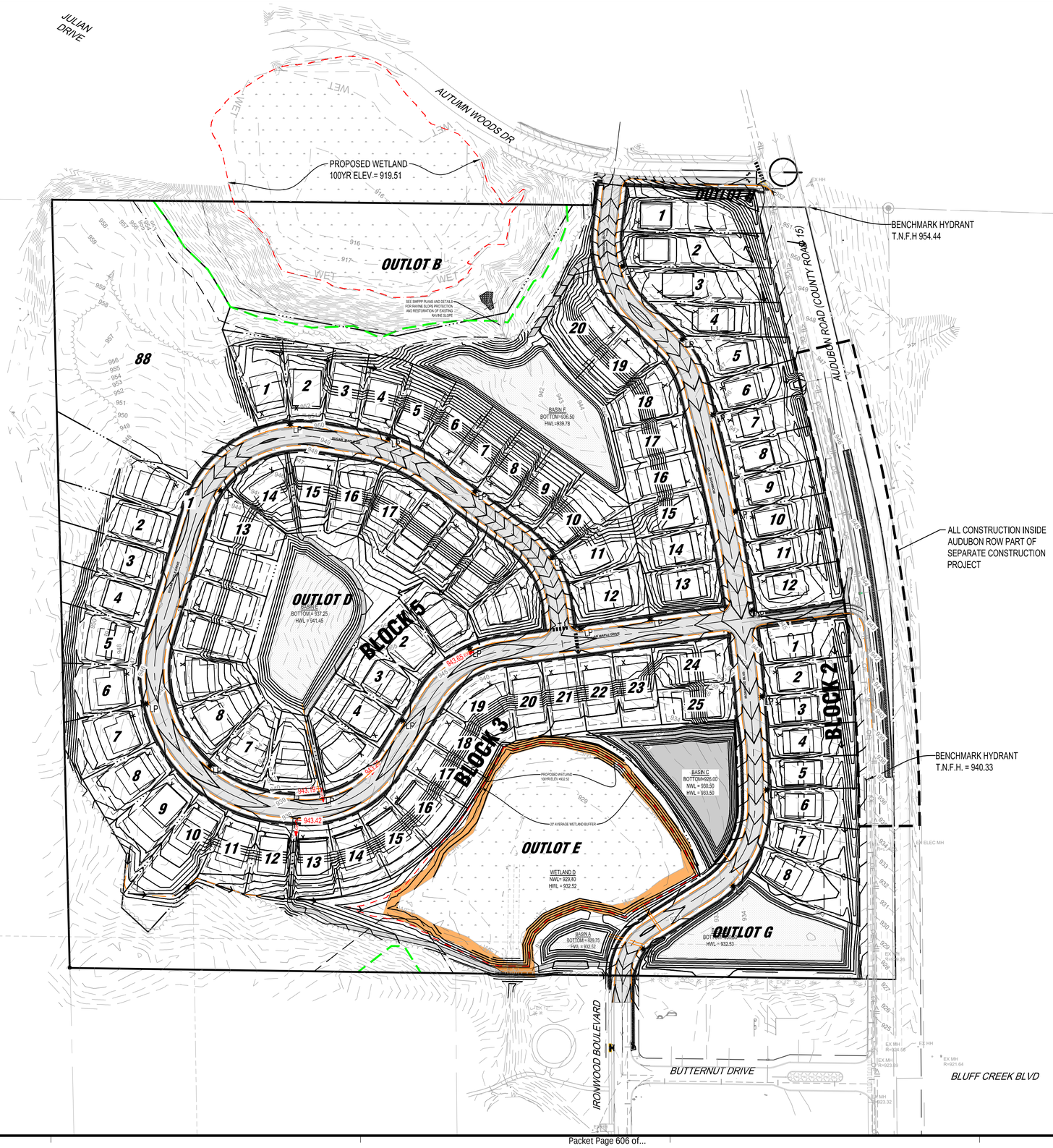
STORM DRAIN DETAILS

SHEET

56 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/18/2021 2:35 PM



PRELIMINARY NOT FOR CONSTRUCTION

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 GRADE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

GRADING PLAN (OVERALL)

SHEET

57

OF 76

PLOT DATE: 1/25/2022 7:03 PM

N

0 40 80

SCALE IN FEET

OUTLOT B

BASIN F
BOTTOM=936.50
HWL=939.78

10' BIT TRAIL / ACCESS, SEE DETAILS

SEE SWPPP PLANS AND DETAILS FOR RAVINE SLOPE PROTECTION AND RESTORATION OF EXISTING RAVINE SLOPE

EXISTING TREES TO REMAIN

8' BIT TRAIL, SEE DETAILS

SUGAR MAPLE DR

SUGAR MAPLE DRIVE

OVERALL HP:
STA=42+83.1
ELEV=957.17

STA=40+05.7
ELEV=945.50

STA=37+16.6
ELEV=947.94

WET

88

20 WO LGE=946.80 GFE = 947.30 BFE=947.30

1 FB BFE=946.05 GFE = 953.75 LGE= 953.55

2 FB BFE=945.55 GFE = 953.25 LGE= 953.05

3 LO GFE = 953.75 BFE=946.05 LGE=949.05

4 LO GFE = 954.50 BFE=946.80 LGE=949.80

5 WO GFE = 956.50 BFE=948.80 LGE=948.30

6 WO GFE = 957.75 BFE=950.05 LGE=949.55

7 WO GFE = 958.00 BFE=950.30 LGE=948.80

8 WO GFE = 957.15 BFE=949.45 LGE=948.95

9 WO GFE = 954.50 BFE=946.80 LGE=948.30

10 WO GFE = 951.50 BFE=943.80 LGE=943.30

11 FB / LO GFE = 949.00 BFE=941.30

1 FB BFE=941.05 GFE = 948.75 LGE=948.55

2 FB BFE=941.05 GFE = 948.75 LGE=948.55

3 FB BFE=942.05 GFE = 949.75 LGE=949.55

13 LO GFE = 949.50 BFE=941.80 LGE=944.80

14 LO GFE = 953.00 BFE=945.30 LGE=948.30

15 LGE=944.80

16 WO GFE = 954.50 BFE=946.80 LGE=946.30

17 WO GFE = 957.65 BFE=949.95 LGE=949.45

LO GFE = 948.50 BFE=940.80 LGE=943.80

LO GFE = 953.00 BFE=945.30

WO GFE = 958.25 BFE=950.55 LGE=950.05

WO GFE = 957.25 BFE=949.55 LGE=949.05

WO GFE = 954.50 BFE=946.80 LGE=949.80

TOP:941.25 EOF 946.25

EOF 947.90

EOF 946.25

EOF 946.50

EOF 951.45

EOF 956.54

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/25/2022 7:03 PM

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

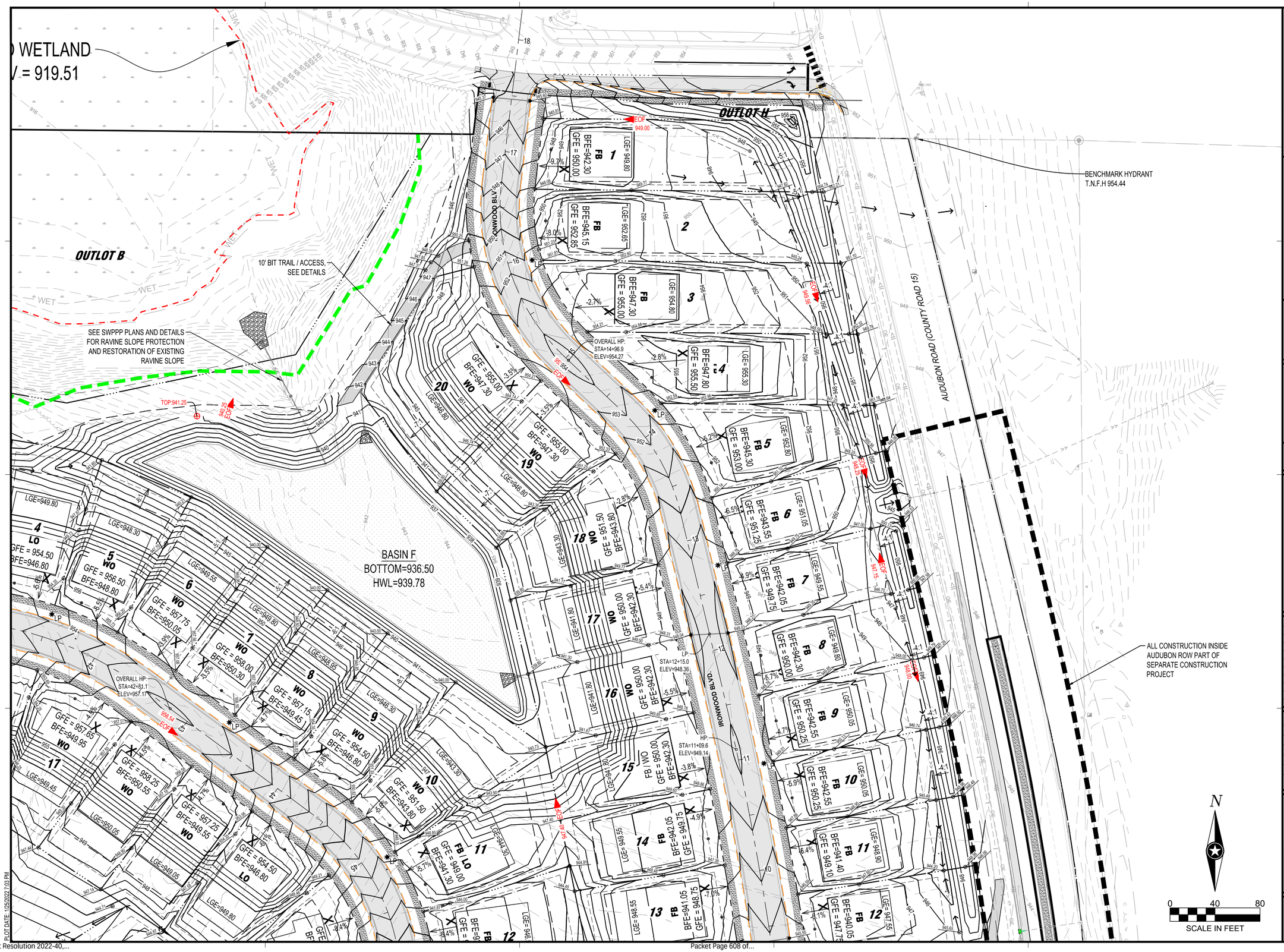
PROJECT NO.	21-24984
FILE NAME	24984 GRADE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

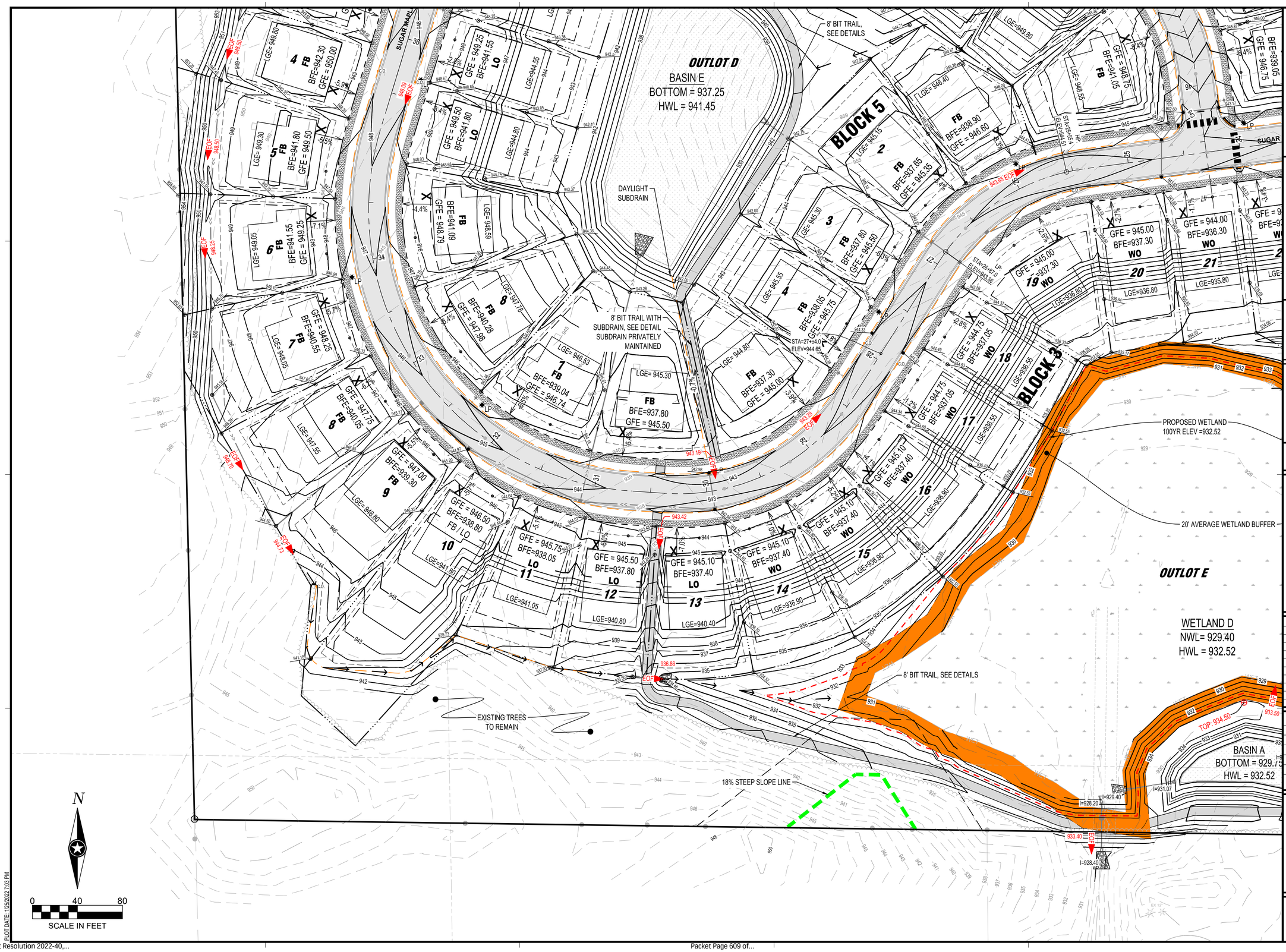
TITLE

GRADING PLAN (NW)

SHEET

58 OF 76


WETLAND
= 919.51
OUTLOT B
OUTLOT H
10' BIT TRAIL / ACCESS, SEE DETAILS
SEE SWPPP PLANS AND DETAILS FOR RAVINE SLOPE PROTECTION AND RESTORATION OF EXISTING RAVINE SLOPE
BENCHMARK HYDRANT
T.N.F.H 954.44
AUDUBON ROAD (COUNTY ROAD 15)
IRONWOOD BLVD.
ALL CONSTRUCTION INSIDE AUDUBON ROW PART OF SEPARATE CONSTRUCTION PROJECT
BASIN F
BOTTOM=936.50
HWL=939.78
OVERALL HP: STA=14+96.9 ELEV=954.27
OVERALL HP: STA=42+81.1 ELEV=957.17
HP STA=12+15.0 ELEV=948.36
HP STA=11+09.6 ELEV=949.14
TOP:941.25
EOF 940.25
EOF 949.00
EOF 949.55
EOF 947.15
EOF 947.40
EOF 946.54
EOF 945.95
EOF 948.00
EOF 947.95
EOF 945.95
FB 1 LGE=949.80 BFE=942.30 GFE = 950.00
FB 2 LGE=952.85 BFE=945.15 GFE = 952.85
FB 3 LGE=954.80 BFE=947.30 GFE = 955.00
FB 4 LGE=955.30 BFE=947.80 GFE = 955.50
FB 5 LGE=952.80 BFE=945.30 GFE = 953.00
FB 6 LGE=951.05 BFE=943.55 GFE = 951.25
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FB 10 LGE=950.05 BFE=942.55 GFE = 950.25
FB 11 LGE=948.90 BFE=941.40 GFE = 949.10
FB 12 LGE=947.55 BFE=940.05 GFE = 947.75
FB 13 LGE=948.55 BFE=941.05 GFE = 948.75
FB 14 LGE=949.55 BFE=942.05 GFE = 949.75
FB | WO 15 LGE=949.80 BFE=942.30 GFE = 950.00
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LO 4 LGE=949.80 BFE=946.80 GFE = 954.50
WO 5 LGE=948.30 BFE=948.80 GFE = 956.50
WO 6 LGE=948.55 BFE=950.05 GFE = 957.75
WO 7 LGE=948.80 BFE=950.30 GFE = 958.00
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WO 9 LGE=946.30 BFE=946.80 GFE = 954.50
WO 10 LGE=943.30 BFE=943.80 GFE = 951.50
WO 11 LGE=944.30 BFE=941.30 GFE = 949.00
WO 12 LGE=946.80 BFE=944.30 GFE = 951.50
WO 17 LGE=949.45 BFE=949.95 GFE = 957.65
WO LGE=950.05 BFE=949.55 GFE = 957.25
WO LGE=949.05 BFE=948.55 GFE = 956.25
LO LGE=949.80 BFE=946.80 GFE = 954.50
LP
-9.7%
-8.0%
-2.7%
-2.8%
-3.5%
-2.8%
-6.5%
-4.9%
-5.7%
-4.7%
-5.9%
-6.4%
-7.1%
-7.0%
-8.1%
-8.4%
-5.4%
-5.5%
-3.8%
-4.9%
-7.7%
-7.8%
-5.3%
-5.8%
-4.5%
-4.1%
-4.2%
-4.1%
-4.1%
-4.1



PLOT DATE: 1/25/2022 1:03 PM

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

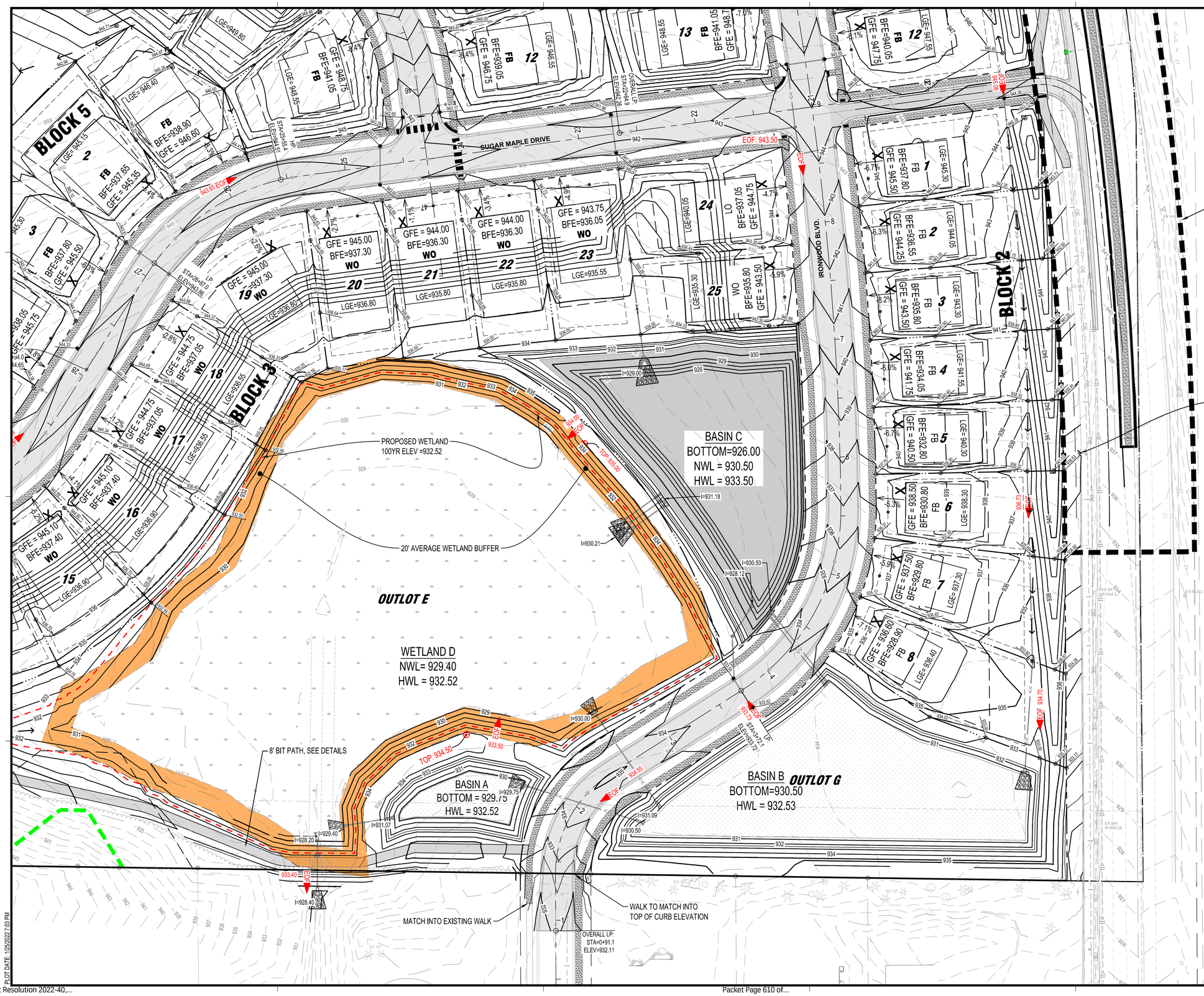
PROJECT NO.	21-24984
FILE NAME	24984 GRADE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

GRADING PLAN (SW)

SHEET

60 OF 76



PRELIMINARY NOT FOR CONSTRUCTION

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 GRADE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

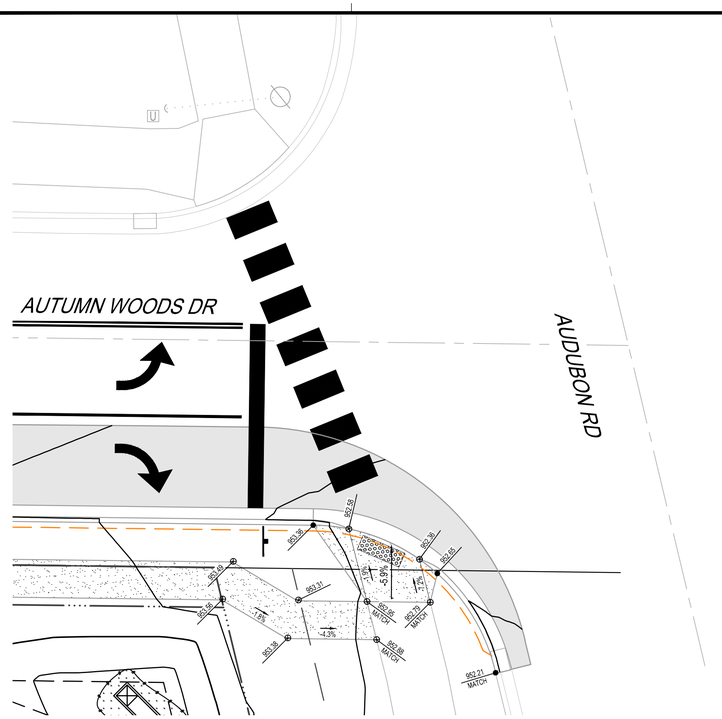
GRADING PLAN (SE)

SHEET

61

OF 76

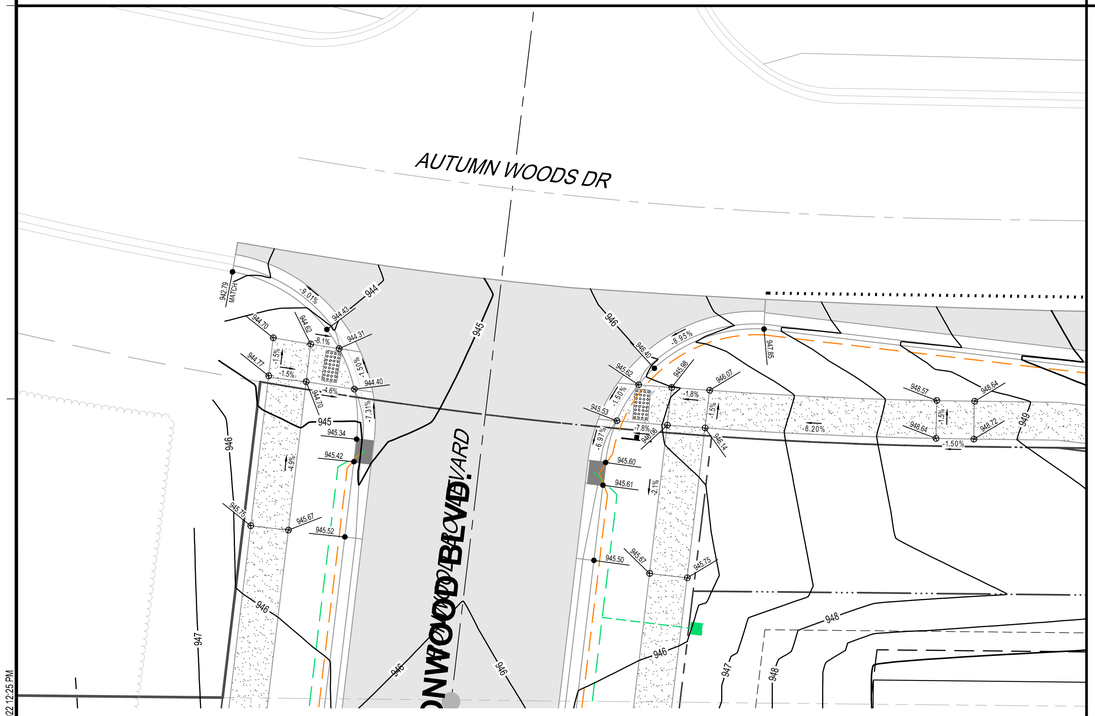
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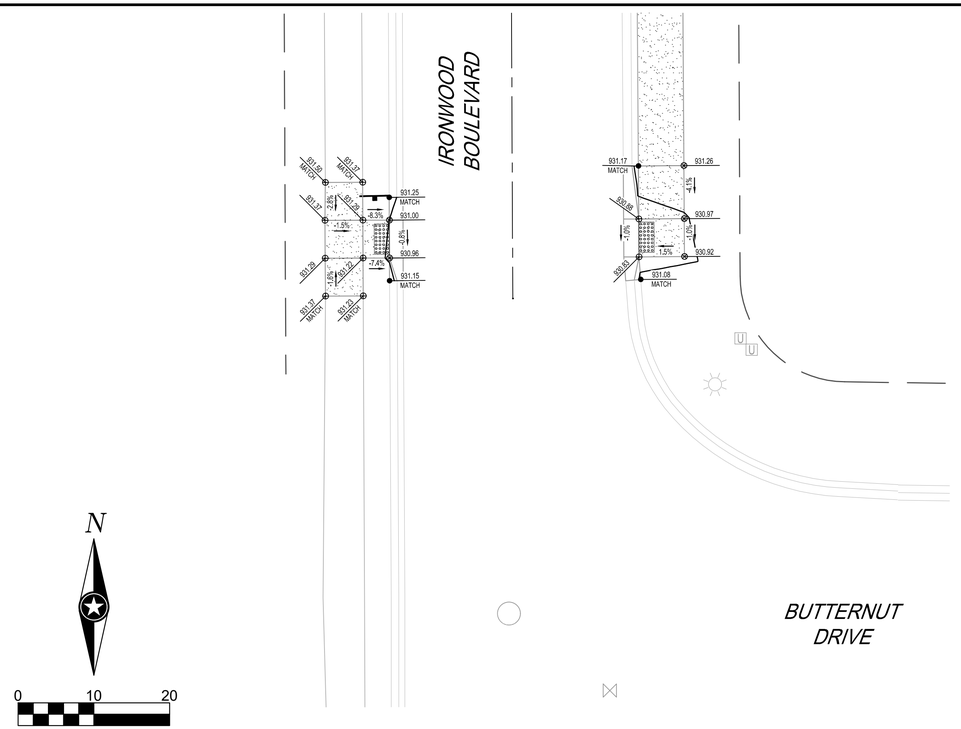
AUTUMN WOODS DR /AUDUBON RD

GRADING LEGEND

101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XXX.XX	PROPOSED SPOT ELEVATION
XXX.XX	PROPOSED TOP BACK OF CURB SPOT ELEVATION
-X.X%	SURFACE GRADE / DIRECTION



IRONWOOD BLVD / AUTUMN WOODS DR



N

0 10 20

SCALE IN FEET

IRONWOOD BLVD / EXISTING PARK

PLOT DATE - 1/27/2022 12:25 PM

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 GRADE INTERSECTIONS
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

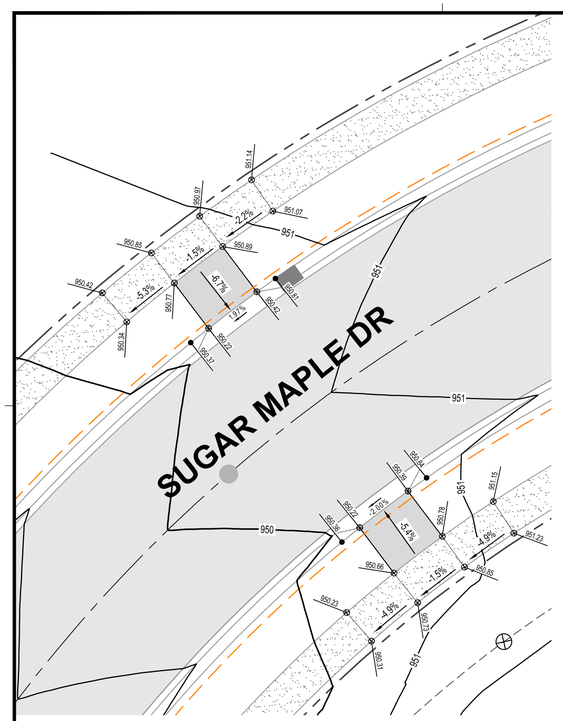
DETAILED GRADING (INTERSECTIONS)

SHEET

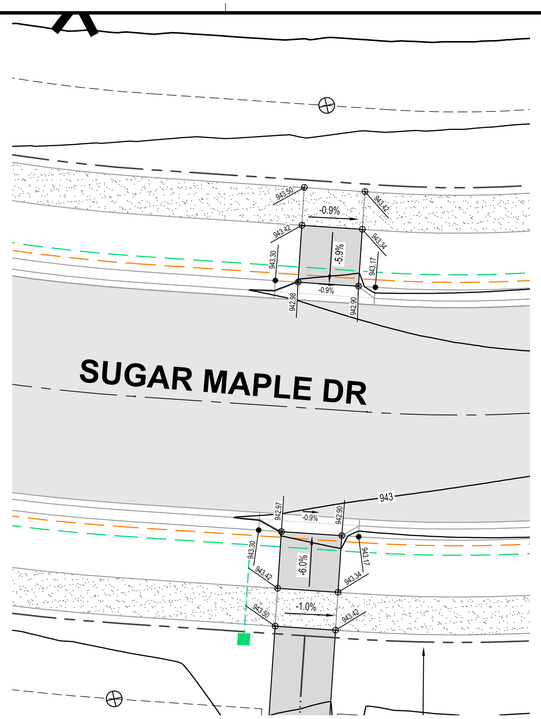
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OF 76

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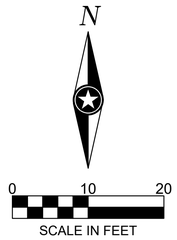


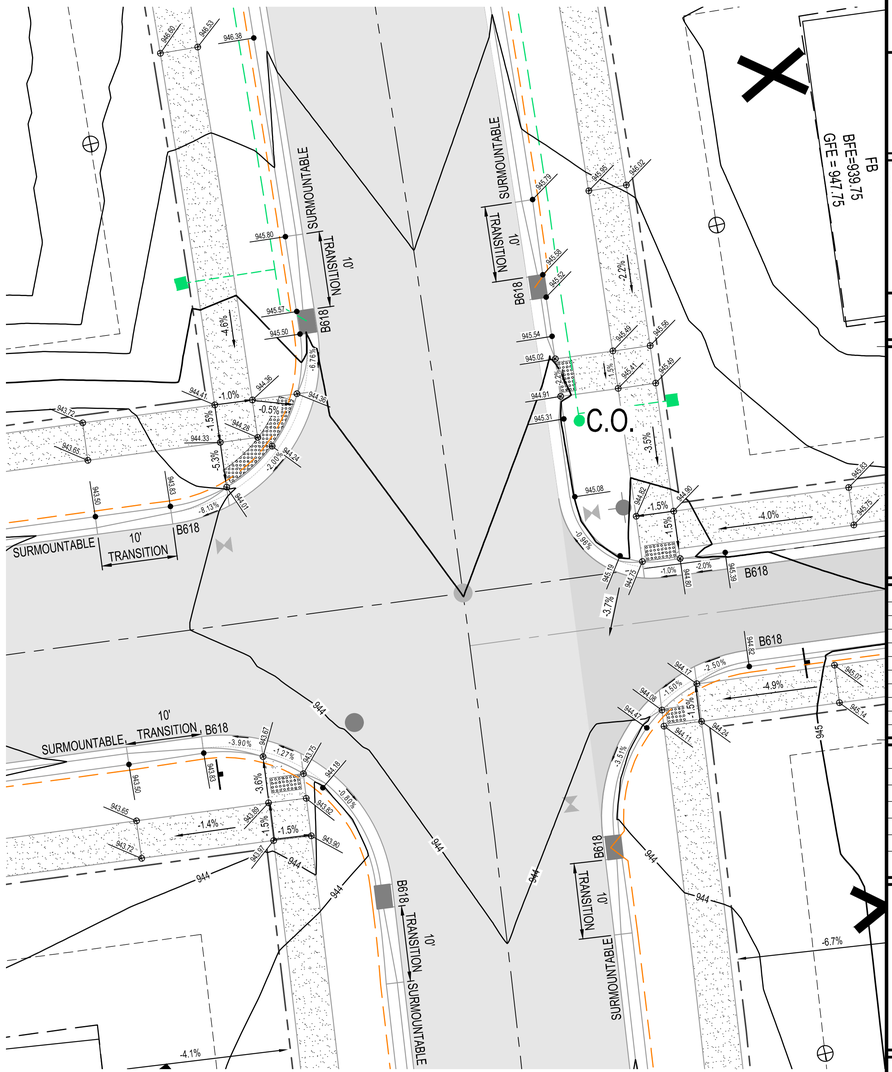
SUGARMAPLE DR NORTH TRAIL CROSSING



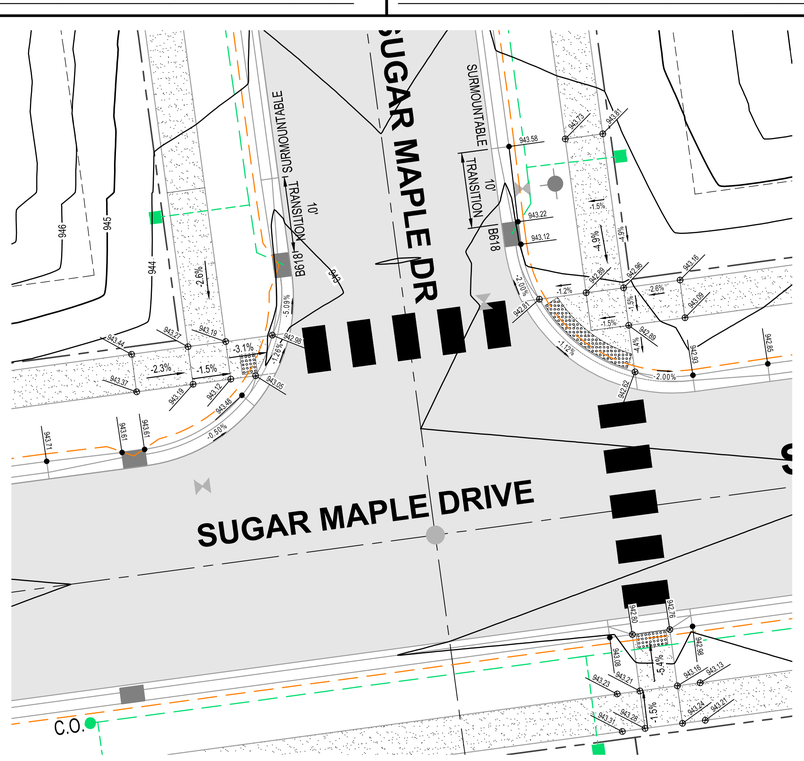
SUGARMAPLE DR SOUTH TRAIL CROSSING

GRADING LEGEND	
101	PROPOSED CONTOUR (MINOR INTERVAL)
100	PROPOSED CONTOUR (MAJOR INTERVAL)
XXX.XX	PROPOSED SPOT ELEVATION
XXX.XX	PROPOSED TOP BACK OF CURB SPOT ELEVATION
-X.X%	SURFACE GRADE / DIRECTION





IRONWOOD BLVD / SUGARMAPLE DR



SUGARMAPLE DR LOOP ROAD

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 GRADE INTERSECTIONS
DRAWN BY	JRS
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CLIENT PROJECT NO.	-

TITLE

DETAILED GRADING (INTERSECTIONS)

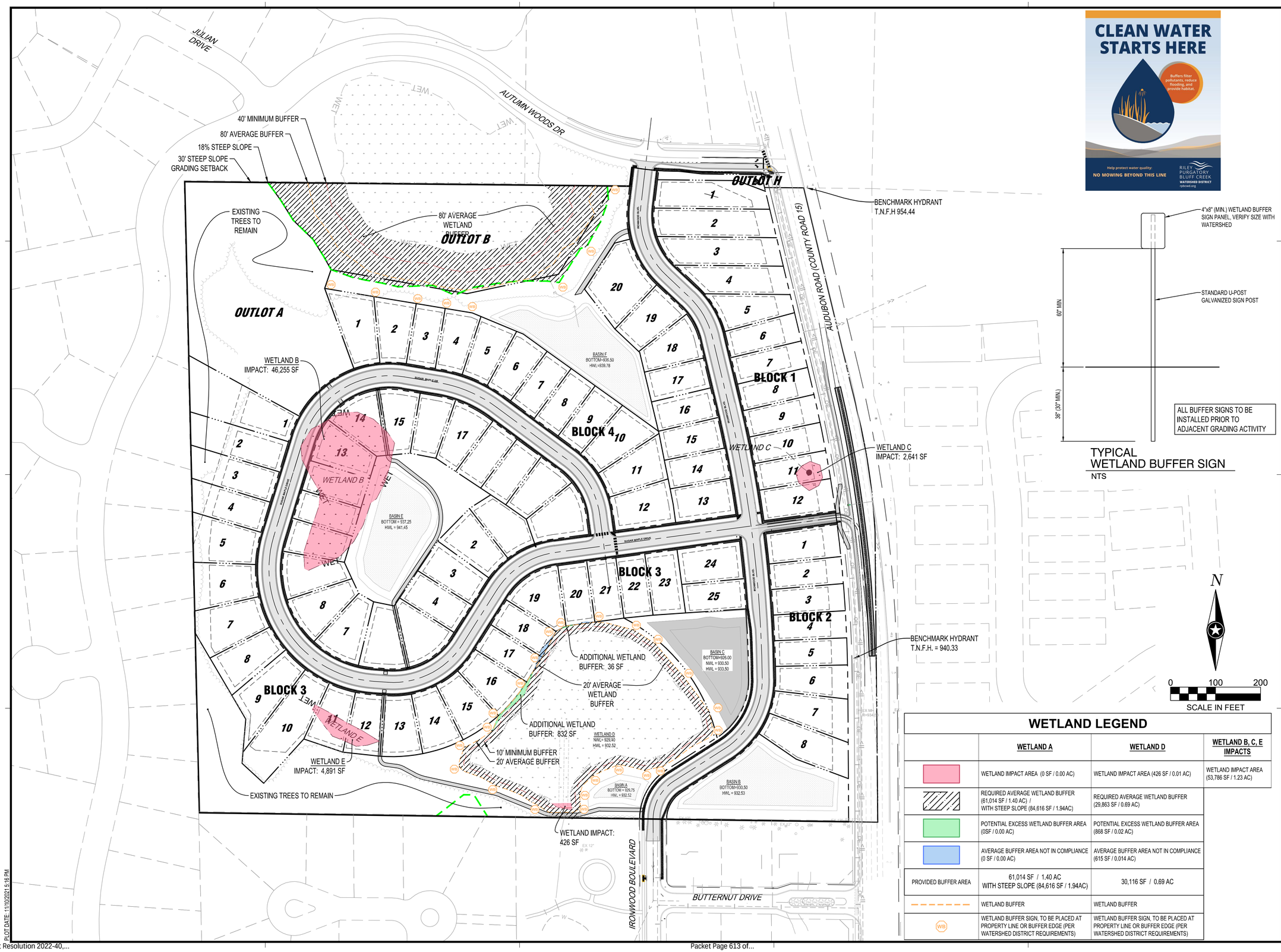
SHEET

63

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/27/2022 12:25 PM



TYPICAL
WETLAND BUFFER SIGN
NTS

WETLAND LEGEND

	WETLAND A	WETLAND D	WETLAND B, C, E IMPACTS
	WETLAND IMPACT AREA (0 SF / 0.00 AC)	WETLAND IMPACT AREA (426 SF / 0.01 AC)	WETLAND IMPACT AREA (53,786 SF / 1.23 AC)
	REQUIRED AVERAGE WETLAND BUFFER (61,014 SF / 1.40 AC) / WITH STEEP SLOPE (84,616 SF / 1.94AC)	REQUIRED AVERAGE WETLAND BUFFER (29,863 SF / 0.69 AC)	
	POTENTIAL EXCESS WETLAND BUFFER AREA (0SF / 0.00 AC)	POTENTIAL EXCESS WETLAND BUFFER AREA (868 SF / 0.02 AC)	
	AVERAGE BUFFER AREA NOT IN COMPLIANCE (0 SF / 0.00 AC)	AVERAGE BUFFER AREA NOT IN COMPLIANCE (615 SF / 0.014 AC)	
PROVIDED BUFFER AREA	61,014 SF / 1.40 AC WITH STEEP SLOPE (84,616 SF / 1.94AC)	30,116 SF / 0.69 AC	
	WETLAND BUFFER	WETLAND BUFFER	
WB	WETLAND BUFFER SIGN, TO BE PLACED AT PROPERTY LINE OR BUFFER EDGE (PER WATERSHED DISTRICT REQUIREMENTS)	WETLAND BUFFER SIGN, TO BE PLACED AT PROPERTY LINE OR BUFFER EDGE (PER WATERSHED DISTRICT REQUIREMENTS)	

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 WETLAND
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

WETLAND BUFFER AND SIGNAGE

SHEET

64

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 11/10/2021 5:16 PM

RESTORATION SCHEDULE

SEED MIX	QTY	DESCRIPTION
	63,520 SF	EMERGENT WETLAND MIX (MNDOT 34-181)
	118,068 SF	MESIC PRAIRIE GENERAL (MNDOT 35-241)
	114,341 SF	STORMWATER SOUTH AND WEST (MNDOT 33-261)
	44,971 SF	WET MEADOW SOUTH & WEST MIX (MNDOT 34-271)

SOD	QTY	DESCRIPTION
	844,213 SF	SALT TOLERANT SOD

CODE REQUIREMENTS SUMMARY

STREET TREES REQUIREMENTS:
1 OVERSTORY TREE ON EACH SIDE OF THE STREET FOR EVERY 50 FEET OF CENTERLINE.
9,370 LF / 50 = (188) TREES
- TREES REQUIRED = 188
- TREES PROVIDED = 188

SCREEN REQUIREMENTS:
BERM REQUIRED ALONG ARTERIALS AND COLLECTORS WITH PLANT MATERIAL TO PROVIDE A VISUAL SCREEN.
- TREES PROVIDED FOR SCREENING: 76

EXISTING TREES:
- (722) SURVEYED TREES MEETING ORDINANCE THRESHOLD
- (148) TOTAL PROPOSED REMOVALS

SIGNIFICANT TREES:
- (262) TOTAL TREES
- (46) PROPOSED REMOVALS, (7) OF WHICH ARE DEAD

SOD REQUIRED IN RIGHT-OF-WAY AND IN FRONT YARDS.
SOD TO BE PLACED BY BUILDER WITH HOME CONSTRUCTION



PLANT SCHEDULE

EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT
AC	8	ABIES CONCOLOR WHITE FIR	6' HT MIN	B & B
AF	14	ABIES FRASERI FRASER FIR	6' HT MIN	B & B
PB	14	PICEA GLAUCA DENSATA BLACK HILLS SPRUCE	6' HT MIN	B & B
PN	17	PINUS NIGRA AUSTRIAN PINE	6' HT MIN	B & B
PR	14	PINUS RESINOSA RED PINE	6' HT MIN	B & B
TT	13	THUJA OCCIDENTALIS 'TECHNY' TECHNY ARBORVITAE	6' HT MIN	B & B

OVERSTORY TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT
AM	17	ACER X FREEMANII 'FIREFALL' FIREFALL MAPLE	2.5" CAL	B & B
AX	15	AESCULUS X 'AUTUMN SPLENDOR' AUTUMN SPLENDOR BUCKEYE	2.5" CAL	B & B
BC	17	BETULA NIGRA 'CULLY' TM HERITAGE RIVER BIRCH	2.5" CAL	B & B
CS	11	CATALPA SPECIOSA NORTHERN CATALPA	2.5" CAL	B & B
GT	26	GLEDITSIA TRIACANTHOS F. INERMIS THORNLESS HONEY LOCUST	2.5" CAL	B & B
GD	17	GYMNOCLADUS DIOICA 'ESPRESSO' KENTUCKY COFFEETREE	2.5" CAL	B & B
MA	15	MAACKIA AMURENSIS AMUR MAACKIA	2.5" CAL	B & B
OV	20	OSTRYA VIRGINIANA AMERICAN HOPHORNBEAM	2.5" CAL	B & B
QA	4	QUERCUS ALBA WHITE OAK	2.5" CAL	B & B
QB	12	QUERCUS BICOLOR SWAMP WHITE OAK	2.5" CAL	B & B
QE	6	QUERCUS ELLIPSOIDALIS NORTHERN PIN OAK	2.5" CAL	B & B
QD	15	QUERCUS ELLIPSOIDALIS 'BAILSKIES' TM MAJESTIC SKIES PIN OAK	2.5" CAL	B & B
QC	12	QUERCUS ROBUR X ALBA 'CRIMSCHMIDT' TM CRIMSON SPIRE OAK	2.5" CAL	B & B
QR	4	QUERCUS RUBRA RED OAK	2.5" CAL	B & B
TG	20	TILIA CORDATA 'GREENSPIRE' GREENSPIRE LITTLELEAF LINDEN	2.5" CAL	B & B
PE	23	ULMUS 'PATRIOT' PATRIOT ELM	2.5" CAL	B & B

N

0 100 200
SCALE IN FEET

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 LANDSCAPE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

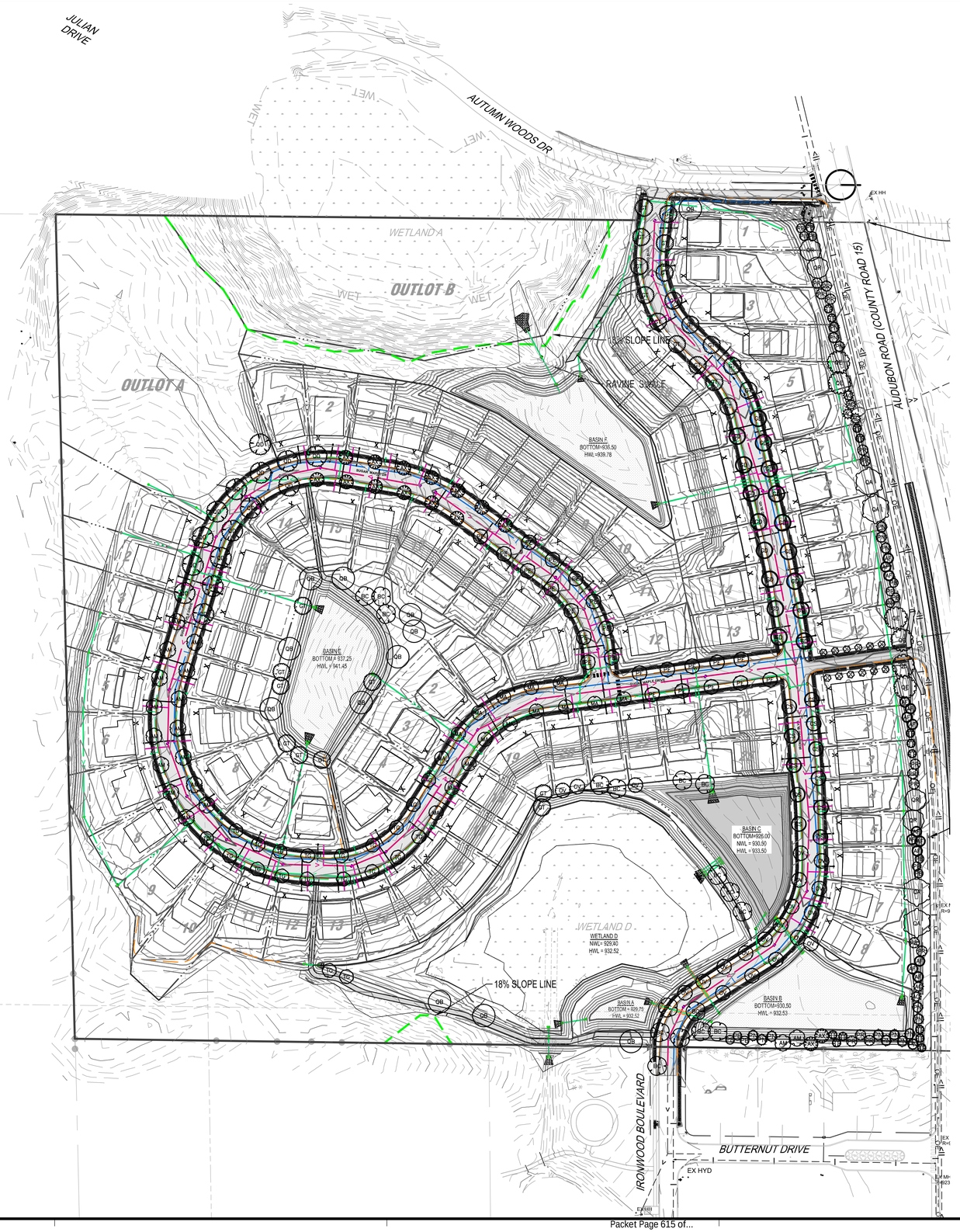
TITLE

RESTORATION AND PLANTING PLAN

SHEET
65
OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/27/2022 11:10 AM



PLANT SCHEDULE

EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT
AC	8	ABIES CONCOLOR WHITE FIR	6` HT MIN	B & B
AF	14	ABIES FRASERI FRASER FIR	6` HT MIN	B & B
PB	14	PICEA GLAUCA DENSATA BLACK HILLS SPRUCE	6` HT MIN	B & B
PN	17	PINUS NIGRA AUSTRIAN PINE	6` HT MIN	B & B
PR	14	PINUS RESINOSA RED PINE	6` HT MIN	B & B
TT	13	THUJA OCCIDENTALIS `TECHNY` TECHNY ARBORVITAE	6` HT MIN	B & B

OVERSTORY TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT
AM	17	ACER X FREEMANII 'FIREFALL' FIREFALL MAPLE	2.5" CAL	B & B
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BC	17	BETULA NIGRA 'CULLY' TM HERITAGE RIVER BIRCH	2.5" CAL	B & B
CS	11	CATALPA SPECIOSA NORTHERN CATALPA	2.5" CAL	B & B
GT	26	GLEDITSIA TRIACANTHOS F. INERMIS THORNLESS HONEY LOCUST	2.5" CAL	B & B
GD	17	GYMNOCLADUS DIOICA 'ESPRESSO' KENTUCKY COFFEETREE	2.5" CAL	B & B
MA	15	MAACKIA AMURENSIS AMUR MAACKIA	2.5" CAL	B & B
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QB	12	QUERCUS BICOLOR SWAMP WHITE OAK	2.5" CAL	B & B
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QD	15	QUERCUS ELLIPSOIDALIS 'BAILSKIES' TM MAJESTIC SKIES PIN OAK	2.5" CAL	B & B
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QR	4	QUERCUS RUBRA RED OAK	2.5" CAL	B & B
TG	20	TILIA CORDATA 'GREENSPIRE' GREENSPIRE LITTLELEAF LINDEN	2.5" CAL	B & B
PE	23	ULMUS 'PATRIOT' PATRIOT ELM	2.5" CAL	B & B

N

0 100 200

SCALE IN FEET

ISG

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LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 OVERALL
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

PLANTING AND UTILITY PLAN (OVERALL)

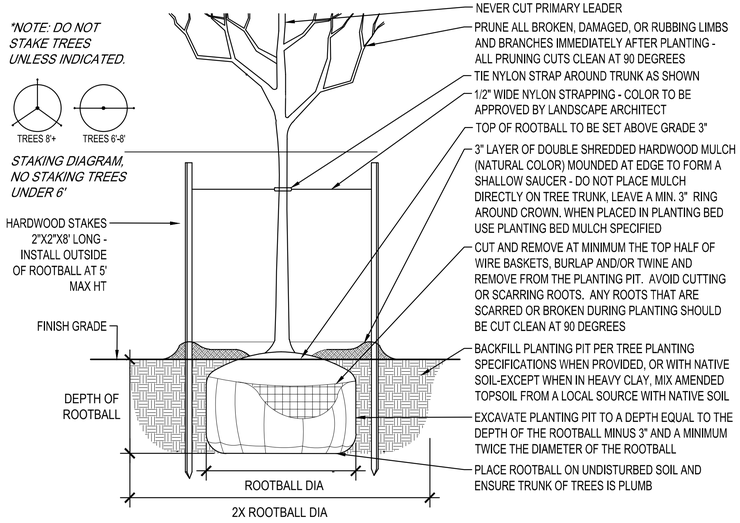
SHEET

66

OF 76

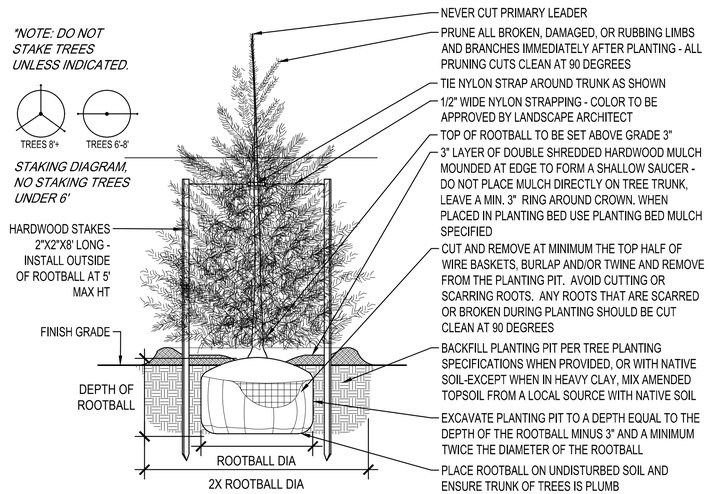
PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/21/2021 10:34 AM



DECIDUOUS TREE PLANTING DETAIL

SCALE: 1" = 1'-0



CONIFER / EVERGREEN TREE PLANTING DETAIL

SCALE: 1" = 1'-0

GENERAL PLANTING NOTES

1. COORDINATE LOCATION OF ALL UTILITIES (LINES, DUCTS, CONDUITS, SLEEVES, FOOTINGS, ETC.) WITH LOCATIONS OF PROPOSED LANDSCAPE ELEMENTS . CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO OWNER'S REPRESENTATIVE PRIOR TO WORK.
2. SAVE AND PROTECT ALL EXISTING TREES NOT NOTED TO BE REMOVED.
3. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIALS INJURIOUS TO PLANT GROWTH FROM PLANTING PITS AND BEDS PRIOR TO BACKFILLING WITH PLANTING MIX.
4. ANY AREAS OUTSIDE THE LIMIT OF WORK THAT ARE DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO OWNER.
5. LAWN AREAS SHALL HAVE 6" MINIMUM DEPTH OF TOPSOIL OR ORGANIC MATTER SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED. TOPSOIL SHALL BE COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AND SHALL MEET WATERSHED DISTRICT'S (RPBCWD) TOPSOIL DEFINITION.
6. REFER TO PLANTING DETAILS PLAN FOR AMENDED SOIL DEPTH IN PLANTING BEDS AND SURROUNDING TREES.
7. FIELD STAKE PLANTINGS ACCORDING TO PLAN. OWNER'S REPRESENTATIVE SHALL APPROVE ALL PLANT LOCATIONS PRIOR TO INSTALLATION. OWNER RESERVES THE RIGHT TO REVISE PLANTING LAYOUT AT TIME OF INSTALLATION.
8. ALL PLANT MATERIALS SHALL BE TRUE TO THEIR SCIENTIFIC NAME AND SIZE AS INDICATED IN THE PLANT SCHEDULE.
9. IF DISCREPANCIES EXIST BETWEEN THE NUMBER OF PLANTS DRAWN ON THE PLANTING PLAN AND THE NUMBER OF PLANTS IN THE SCHEDULE, THE PLANTING PLAN SHALL GOVERN.
10. OWNER RESERVES THE RIGHT TO REVISE QUANTITIES TO SUIT BUDGET LIMITATIONS. CONTRACTOR'S UNIT BID PRICES SHALL PREVAIL FOR ANY CHANGES IN QUANTITIES.
11. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE, AND ONLY AFTER WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE AND OWNER.
12. ALL PLANT MATERIALS MUST CONFORM TO AMERICAN STANDARDS FOR NURSERY STOCK (A.N.S.I.), LATEST EDITION PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, WASHINGTON D.C. LARGER SIZED PLANT MATERIALS OF THE SPECIES LISTED MAY BE USED IF THE STOCK CONFORMS TO A.N.S.I.
13. ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN A LIVE AND HEALTHY GROWING CONDITION FOR ONE FULL GROWING SEASON (ONE YEAR) AFTER FINAL PROJECT ACCEPTANCE OR SHALL BE REPLACED FREE OF CHARGE WITH THE SAME GRADE AND SPECIES. ALL TREES SHALL HAVE A STRONG CENTRAL LEADER.
14. FOR TREES PROVIDE DOUBLE SHREDDED HARDWOOD MULCH RING (NATURAL COLOR) AT 3" DEPTH PER PLANTING DETAILS.
15. ALL TURF AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED OR SEEDED PER PLANS.

AUDUBON ROAD

PLOT DATE: 1/27/2022 11:10 AM

ISG

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 LANDSCAPE
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

PLANTING NOTES AND DETAILS

SHEET

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PRELIMINARY NOT FOR CONSTRUCTION

SITE PREPARATION

HERBICIDE APPLICATION

1. Weed Identification: Site evaluation shall be conducted prior to site preparation to determine the undesirable and non-native species of trees, shrubs, vines, and herbaceous plants on site. This site evaluation will either be done by the Contractor or the Architect/Engineer's Representative.
2. Weed Eradication: All existing undesirable and non-native plant vegetation should be killed and/or removed from the site with multiple herbicide applications. Common weed species found in wetlands include Reed Canary Grass, non-native Phragmites, and Cattails.
3. Herbicide Selection: In riparian or wetland areas, water-safe herbicides approved for use near water must be used. Pre-emergent herbicides should not be used. For more detailed guidance on herbicide selection, see Appendix 5B of the BWSR Minnesota Wetland Restoration Guide.
3. Herbicide Application: All herbicides should be applied in accordance with state and federal regulations and manufacturer's instructions. Herbicides should not be applied during or within 72 hours of a rain event or when wind velocities exceed 5 miles per hour. Ideally, 3 herbicide applications would be conducted in spring, summer, and fall with seeding occurring in early winter. This ideal schedule may need to be adapted to align with the construction timeline.

SEEDBED PREPARATION

1. All restoration areas should be free of any rocks, crop residue, trash, or debris. Mow or harvest oats if used as temporary erosion control.
2. Construction and grading activities can compact the soil. Prior to seeding, any compacted areas must be prepared to provide a loose, smooth, evenly textured seedbed. A good seedbed is one that an adult footprint sinks into the soil about ¼ to ½ inch. If the seedbed is too compacted, discing is recommended. On slopes, operate equipment at right angles to the direction of surface drainage. The disc should not invert the soil. Avoid soil inversion and tilling to preserve soil biology and prevent emergence of weed seeds.
3. Discing may need to be followed by rolling or cultipacking to firm the seedbed. If the seedbed is too loose and fluffy, seeds will be placed too deep for proper germination.

WETLAND SEEDING

1. Seeding will only be conducted after all grading, construction, and site preparation activities are completed. The Contractor must wait 3 days after glyphosate application to seed native species. If other herbicides have been used on site, consult the manufacturer's recommendation for safe re-entry period prior to seeding. Some herbicides can stay in the soil for months and hinder the germination of native plants.
2. Seeding should be conducted by hand broadcasting, mechanical broadcasting, or drilling.
3. The Contractor is responsible for calibrating equipment to deliver seed at the specified rate and to operate equipment in a manner necessary to evenly distribute the seeds over the specified area at the specified rate.
4. Seeded areas may have one pass with a roller or cultipacker to firm the soil and ensure good seed-to-soil contact.
5. Do not apply fertilizers in the areas seeded with native grasses and wildflowers.
6. If necessary, plant a cover crop and/or apply Type 3 weed-free straw mulch for temporary erosion control. Use Oats as a cover crop in spring and summer; use Winter Wheat as a cover crop in fall.

TABLE 1: WET MEADOW SEED MIX 34-271

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
GRASSES					
Fringed Brome	*Bromus ciliatus*	1.23	1.10	9.18%	4.45
Bluejoint Grass	*Calamagrostis canadensis*	0.06	0.05	0.41%	5.00
Virginia Wild Rye	*Elymus virginicus*	1.12	1.00	8.37%	1.55
Rice Cut Grass	*Leersia oryzoides*	0.28	0.25	2.07%	3.10
Tall Manna Grass	*Glyceria grandis*	0.17	0.15	1.26%	3.90
Fowl Manna Grass	*Glyceria striata*	0.11	0.10	0.83%	3.30
Fowl Bluegrass	*Poa palustris*	0.39	0.35	2.88%	16.50
	Total Grasses	**3.36**	**3.00**	**25.00%**	**37.80**
SEDGES + RUSHES					
Bristly Sedge	*Carex comosa*	0.24	0.21	1.78%	2.36
Pointed Broom Sedge	*Carex scoparia*	0.06	0.05	0.43%	1.60
Awl-fruited Sedge	*Carex stipata*	0.19	0.17	1.40%	2.10
Tussock Sedge	*Carex stricta*	0.03	0.03	0.21%	0.50
Fox Sedge	*Carex vulpinoidea*	0.16	0.14	1.13%	5.00
Path Rush	*Juncus tenuis*	0.04	0.04	0.34%	15.00
Dark Green Bulrush	*Scirpus atrovirens*	0.20	0.18	1.48%	30.00
Woolgrass	*Scirpus cyperinus*	0.09	0.08	0.67%	50.00
	Total Sedges and Rushes	**1.01**	**0.90**	**7.44%**	**106.56**
FORBS					
Marsh Milkweed	*Asclepias incarnata*	0.27	0.24	2.03%	0.43
Common Boneset	*Eupatorium perfoliatum*	0.02	0.02	0.18%	1.30
Grass-leaved Goldenrod	*Euthamia graminifolia*	0.01	0.01	0.06%	1.00
Spotted Joe Pye Weed	*Eutrochium maculatum*	0.02	0.02	0.18%	0.75
Sneezeweed	*Helenium autumnale*	0.03	0.03	0.23%	1.30
Sawtooth Sunflower	*Helianthus grosseserratus*	0.04	0.04	0.30%	0.20
Great Blue Lobelia	*Lobelia siphilitica*	0.02	0.02	0.13%	2.90
Blue Monkey Flower	*Mimulus ringens*	0.01	0.01	0.07%	6.80
Virginia Mountain Mint	*Pycnanthemum virginianum*	0.07	0.06	0.53%	5.10
Giant Goldenrod	*Solidago gigantea*	0.02	0.02	0.14%	1.50
Eastern Panicled Aster	*Symphyotrichum lanceolatum*	0.03	0.03	0.22%	1.50
Red-stemmed Aster	*Symphyotrichum puniceum*	0.19	0.17	1.42%	5.00
Tall Meadow Rue	*Thalictrum dasycarpum*	0.01	0.01	0.12%	0.11
Blue Vervain	*Verbena hastata*	0.15	0.13	1.12%	4.61
Ironweed	*Vernonia fasciculata*	0.03	0.03	0.28%	0.30
Culver's Root	*Veronicastrum virginicum*	0.01	0.01	0.12%	4.20
Golden Alexanders	*Zizia aurea*	0.28	0.25	2.06%	1.00
	Total Forbs	**1.23**	**1.10**	**9.19%**	**38.00**
COVER CROP					
Oats	*Avena sativa*	7.85	7.00	58.37%	3.12
	Total Cover Crop	**7.85**	**7.00**	**58.37%**	**3.12**
	Totals:	**13.45**	**12.00**	**100.00%**	**185.48**
Purpose:	Wet meadow / Sedge meadow reconstruction for wetland mitigation or ecological restoration projects				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

VEGETATION ESTABLISHMENT

YEAR 1

1. During the first growing season after planting, all seeded areas must be kept mowed to the extent possible to help control weed growth, allow sunlight to penetrate to the soil surface, and encourage root development on the native perennials. Wet areas should be mowed along with the upland and buffer areas; however, the equipment shall not cause ruts or compact the wet soil. Some sites may be too wet to allow mowing without causing ruts or compaction in which case it is allowable not to mow the area.
2. Mow to a height of 6-8 inches whenever the vegetation reaches 10-12 inches tall, approximately once every 1-4 weeks depending on the rate of vegetation growth.
3. Use of a flail mower or stalk chopper to prevent smothering of native plant seedlings. If a flail mower or stalk chopper is not available, the vegetation must by hayed/bagged and removed from the site, or mowing must be frequent enough to ensure cut vegetation is small enough to compost itself back into the site without creating a thick mulch and negatively effecting the native plant seedlings.
4. Spot-treat weeds such as Reed Canary Grass and Canada Thistle with an appropriate herbicide.
5. Do not hand-pull any weeds during the first growing season as to not disturb the soil or native seedlings.

LONG-TERM MANAGEMENT

YEAR 2

1. Mow to a height of 6-8 inches up to two times in the spring and early summer to help control weed growth.
2. Spot-treat aggressive perennial weeds such as Reed Canary Grass and Canada Thistle with an appropriate herbicide.

YEAR 3 + BEYOND

1. Periodically monitor wetland for weeds and hydrological issues at least once per year. Healthy stands of native vegetation are important to provide wildlife habitat, capture nutrient runoff, and reduce peak flows during large precipitation events. It is important to ensure that vegetation is sufficiently established, maintains diversity levels, and is out-competing invasive species. On-site observations are necessary to spot problems and get them resolved as soon as possible.
2. Spot-treat weeds such as Reed Canary Grass and Canada Thistle with an appropriate herbicide.
3. Consider periodic disturbance such as prescribed fire, mowing, or grazing once every 3-5 years. By necessity, some amount of flexibility is needed when managing wetland restorations. Changes in management strategies and timing are often necessary to react to changing or unexpected project conditions, whether they are due to natural circumstances or manmade circumstances. Adaptive management solutions tailored to site observations are encouraged.

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 WETLAND REST
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

RESTORATION AND PLANTING PLAN (WETLAND D)

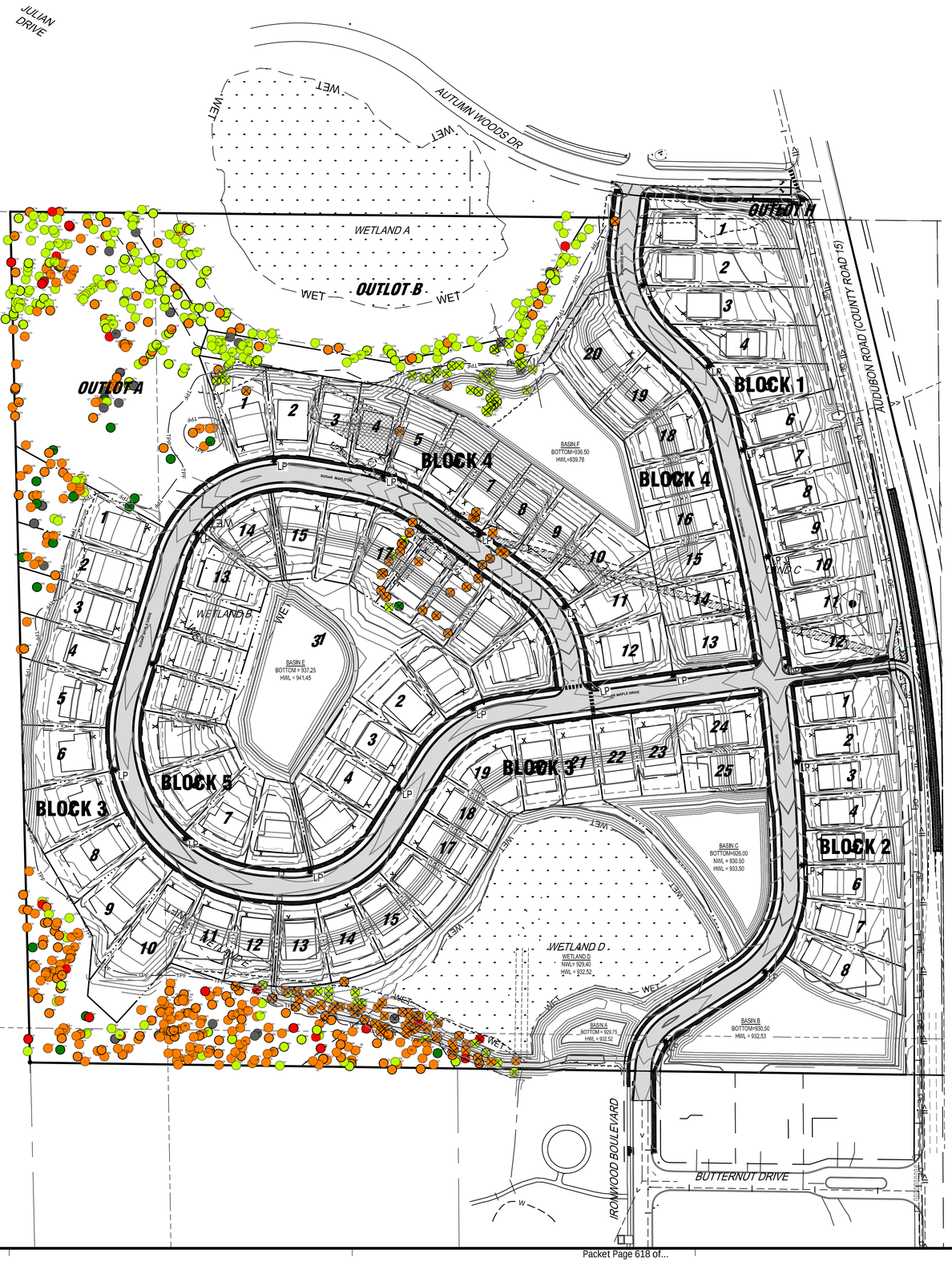
SHEET

68

OF 76

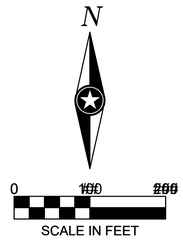
PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 1/3/2022 11:47 AM



TREE REMOVAL LEGEND

SYMBOL	DESCRIPTION
	EXCELLENT
	GOOD
	FAIR
	POOR
	DEAD



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RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

OVERALL TREE PRESERVATION

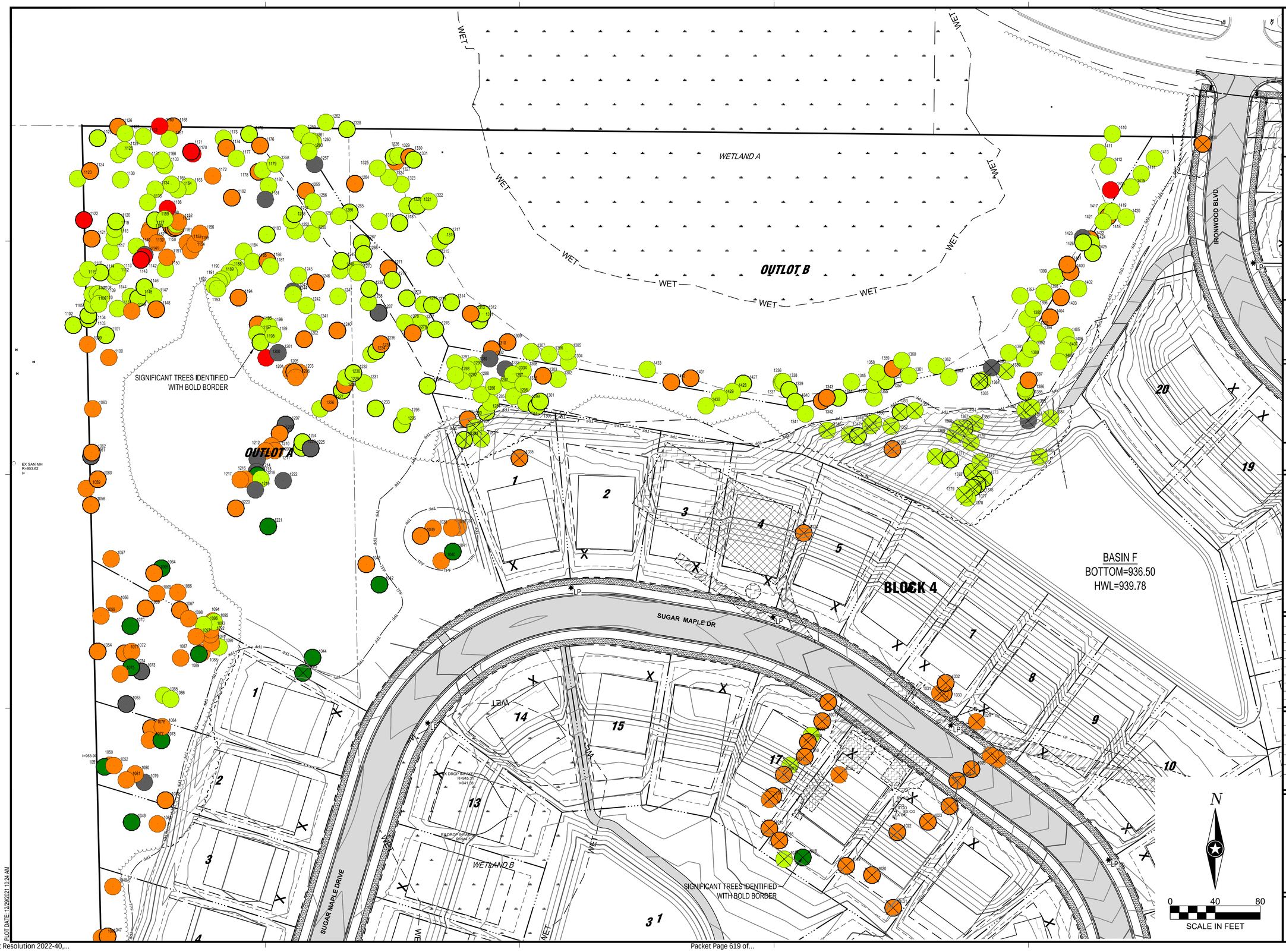
SHEET

69

OF 76

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LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

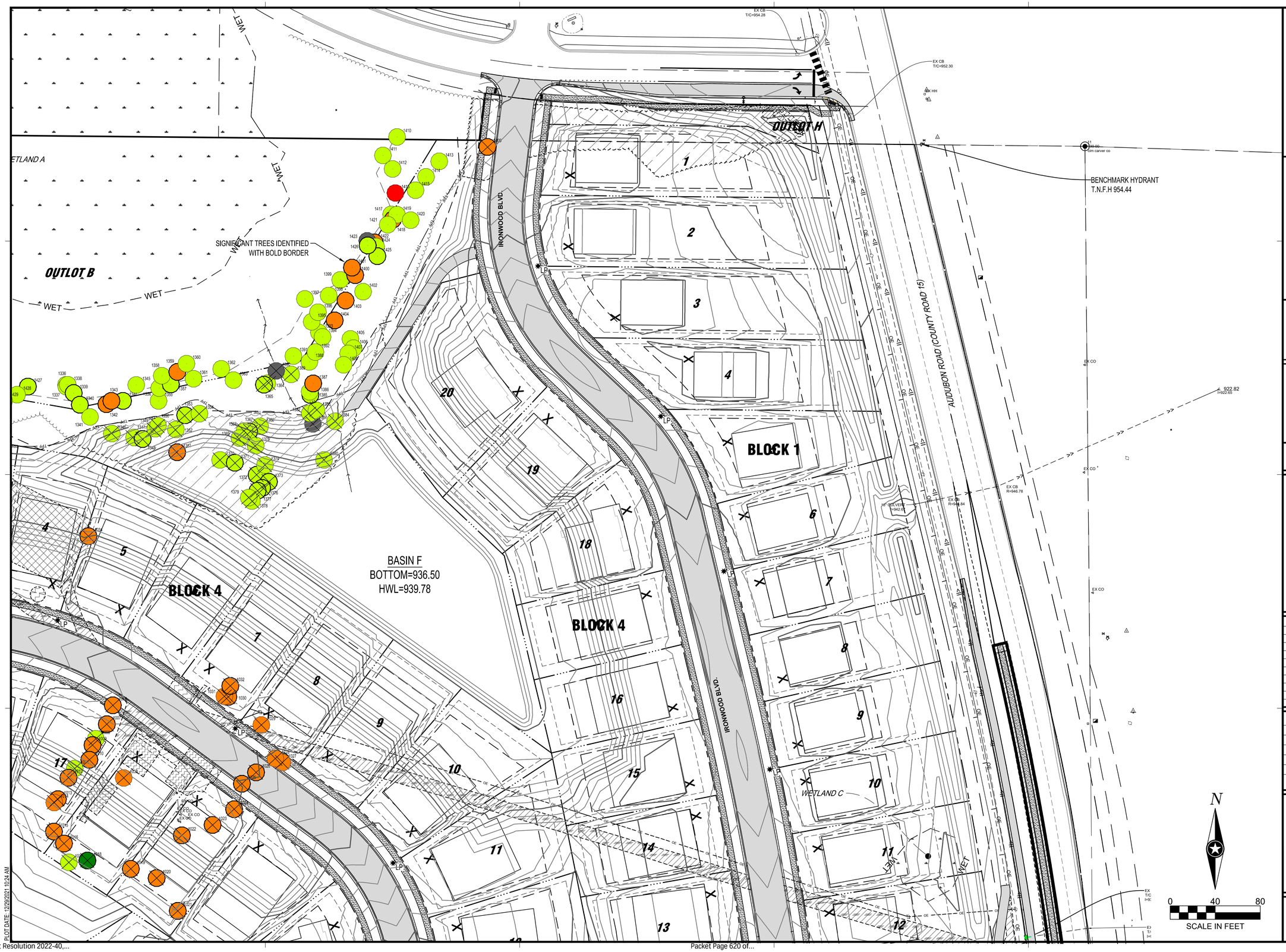
TITLE

TREE PRESERVATION A

SHEET

70 OF 76

PLOT DATE: 12/9/2021 10:24 AM



PLOT DATE: 2/28/2021 10:24 AM

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PROJECT

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RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TREE PRESERVATION B

SHEET

71

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

BASIN E
BOTTOM = 937.25
HWL = 941.45

WETLAND D
NWL= 929.40
HWL = 932.52

BASIN A
BOTTOM = 929.75
HWL = 932.52

SIGNIFICANT TREES IDENTIFIED WITH BOLD BORDER

SUGAR MAPLE DRIVE

BLOCK 3

BLOCK 5

BLOCK 3

WETLAND E

WETLAND D

EX DROP INTAKE
R=928.92

EX 12"

0 40 80
SCALE IN FEET

N

PLOT DATE: 12/29/2021 10:24 AM

PRELIMINARY NOT FOR CONSTRUCTION

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LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

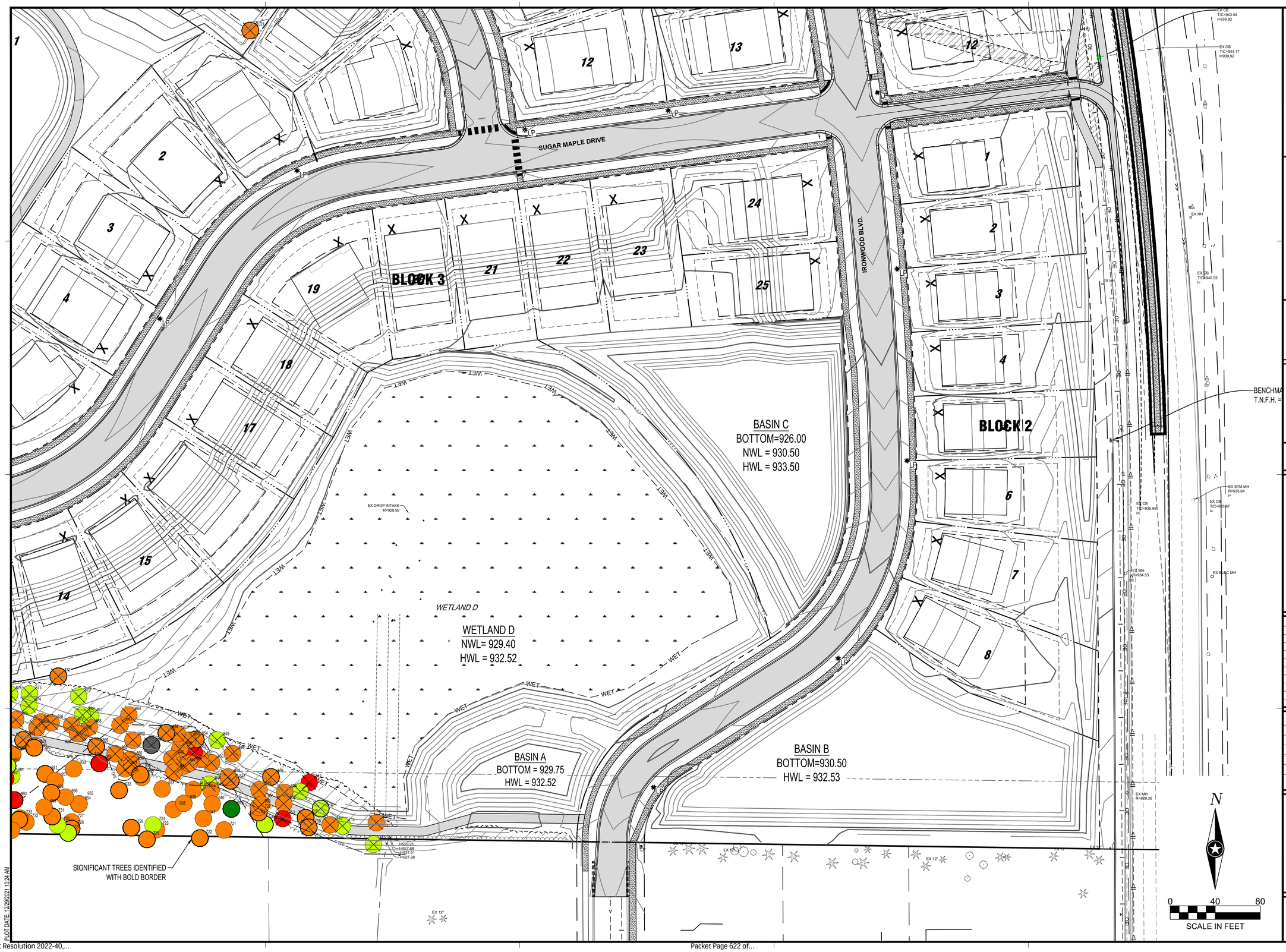
TITLE

TREE PRESERVATION C

SHEET

72

OF 76



PLOT DATE: 2/28/2021 10:24 AM

PRELIMINARY NOT FOR CONSTRUCTION

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RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
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ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TREE PRESERVATION D

SHEET

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OF 76

Tree Tag Number	Tree Species	DBH (Inches)	Structural Condition	Health Condition	Removals
712	Elm, American	8	3-Fair	2-Good	X
713	Oak, Northern Red	6	2-Good	2-Good	X
714	Maple, Sugar	7	3-Fair	2-Good	X
715	Maple, Sugar	6	2-Good	2-Good	X
716	Maple, Sugar	14	3-Fair	3-Fair	X
717	Basswood, American	26	2-Good	2-Good	X
718	Oak, Northern Red	29	2-Good	2-Good	X
719	Oak, White	16	3-Fair	2-Good	
720	Oak, White	19	2-Good	2-Good	X
721	Basswood, American	10	2-Good	2-Good	
722	Elm, American	12	2-Good	3-Fair	
723	Elm, American	9	2-Good	2-Good	
724	Basswood, American	9	3-Fair	2-Good	
725	Basswood, American	14	2-Good	2-Good	
726	Hackberry	12	2-Good	2-Good	
727	Elm, American	6	2-Good	2-Good	
728	Basswood, American	16	2-Good	2-Good	
729	Basswood, American	16	3-Fair	2-Good	
730	Elm, American	11	3-Fair	2-Good	
731	Basswood, American	15	2-Good	2-Good	
732	Elm, American	9	2-Good	2-Good	
733	Ash, Black	7	2-Good	2-Good	
734	Hickory, Bitternut	12	2-Good	2-Good	
735	Basswood, American	11	2-Good	2-Good	
736	Oak, Northern Pin	10	2-Good	2-Good	
737	Elm, American	8	3-Fair	2-Good	
738	Maple, Sugar	9	2-Good	2-Good	
739	Maple, Sugar	6	2-Good	2-Good	
740	Basswood, American	11	3-Fair	3-Fair	
741	Maple, Sugar	6	2-Good	2-Good	
742	Hickory, Bitternut	7	2-Good	3-Fair	
743	Maple, Sugar	7	3-Fair	2-Good	
744	Elm, American	6	2-Good	2-Good	
745	Basswood, American	11	2-Good	2-Good	
746	Basswood, American	8	2-Good	2-Good	
747	Maple, Sugar	9	2-Good	2-Good	
748	Maple, Sugar	10	2-Good	2-Good	
749	Cottonwood, Eastern	30	2-Good	2-Good	
750	Maple, Sugar	8	2-Good	2-Good	
751	Hickory, Bitternut	12	2-Good	2-Good	
752	Hickory, Bitternut	6	2-Good	2-Good	
753	Elm, American	13	2-Good	2-Good	
754	Maple, Sugar	29	4-Poor	4-Poor	
755	Elm, American	7	3-Fair	2-Good	
756	Oak, White	7	2-Good	2-Good	
757	Basswood, American	14	2-Good	2-Good	
758	Cottonwood, Eastern	35	1-Excellent	2-Good	
759	Maple, Sugar	8	2-Good	2-Good	
760	Basswood, American	11	2-Good	2-Good	
761	Basswood, American	14	2-Good	2-Good	
762	Cottonwood, Eastern	29	2-Good	2-Good	
763	Oak, Northern Red	6	2-Good	2-Good	
764	Elm, American	7	3-Fair	2-Good	
765	Elm, American	6	4-Poor	2-Good	
766	Cottonwood, Eastern	41	2-Good	2-Good	
767	Ash, Black	7	3-Fair	2-Good	
768	Oak, Black	8	2-Good	2-Good	
769	Cottonwood, Eastern	23	2-Good	3-Fair	
770	Basswood, American	12	2-Good	2-Good	
771	Elm, American	14	2-Good	2-Good	
772	Oak, White	13	2-Good	2-Good	
773	Maple, Norway	7	2-Good	2-Good	
774	Hickory, Bitternut	7	3-Fair	2-Good	
775	Oak, White	7	3-Fair	2-Good	
776	Oak, White	12	2-Good	2-Good	
777	Oak, Northern Red	10	2-Good	3-Fair	
778	Elm, American	10	2-Good	2-Good	
779	Oak, Northern Red	11	2-Good	2-Good	
780	Oak, White	8	2-Good	2-Good	
781	Oak, Northern Pin	7	2-Good	2-Good	
782	Hackberry	12	2-Good	2-Good	
783	Cottonwood, Eastern	31	2-Good	2-Good	
784	Maple, Sugar	10	2-Good	2-Good	
785	Basswood, American	8	2-Good	2-Good	
786	Basswood, American	12	2-Good	2-Good	
787	Oak, Black	11	2-Good	2-Good	
788	Oak, White	9	2-Good	2-Good	
789	Oak, White	6	2-Good	2-Good	
790	Basswood, American	11	4-Poor	2-Good	
791	Oak, Northern Pin	7	2-Good	2-Good	
792	Hickory, Bitternut	11	2-Good	2-Good	
793	Hickory, Bitternut	13	2-Good	2-Good	
794	Oak, Northern Red	10	2-Good	2-Good	
795	Hickory, Bitternut	12	2-Good	2-Good	
796	Hickory, Bitternut	6	2-Good	2-Good	
797	Oak, Northern Red	7	2-Good	2-Good	
798	Basswood, American	14	2-Good	2-Good	
799	Basswood, American	13	2-Good	2-Good	
800	Basswood, American	18	2-Good	2-Good	
801	Locust, Black	14	3-Fair	2-Good	
802	Oak, Northern Pin	8	3-Fair	3-Fair	
803	Oak, Northern Pin	9	2-Good	2-Good	
804	Hickory, Bitternut	13	2-Good	2-Good	
805	Hickory, Bitternut	7	2-Good	3-Fair	
806	Locust, Black	32	2-Good	3-Fair	
807	Oak, Black	45	1-Excellent	2-Good	
808	Elm, American	12	4-Poor	4-Poor	
809	Oak, Northern Red	9	3-Fair	4-Poor	
810	Oak, Northern Red	12	2-Good	2-Good	
811	Oak, Northern Pin	6	2-Good	2-Good	
812	Oak, Northern Pin	8	2-Good	2-Good	
813	Oak, Northern Pin	10	2-Good	2-Good	
814	Oak, Northern Red	10	2-Good	2-Good	
815	Cottonwood, Eastern	30	2-Good	2-Good	
816	Locust, Black	34	1-Excellent	2-Good	
817	Basswood, American	16	2-Good	2-Good	
818	Hackberry	9	2-Good	2-Good	
819	Oak, Northern Red	18	2-Good	2-Good	
820	Cottonwood, Eastern	26	5-Dead	5-Dead	
821	Elm, American	7	2-Good	2-Good	
822	Basswood, American	12	4-Poor	3-Fair	
823	Oak, Northern Pin	10	3-Fair	3-Fair	
824	Oak, Northern Pin	8	3-Fair	2-Good	
825	Oak, Northern Red	9	2-Good	2-Good	
826	Oak, Northern Pin	11	2-Good	2-Good	
827	Oak, Northern Red	15	2-Good	2-Good	
828	Chestnut, American	13	5-Dead	5-Dead	
829	Oak, Northern Red	15	2-Good	2-Good	
830	Hickory, Bitternut	6	2-Good	2-Good	
831	Cottonwood, Eastern	30	2-Good	2-Good	
832	Maple, Sugar	11	3-Fair	2-Good	
833	Elm, American	8	2-Good	2-Good	
834	Hickory, Bitternut	8	2-Good	2-Good	
835	Hickory, Bitternut	12	2-Good	2-Good	
836	Oak, Northern Pin	10	2-Good	2-Good	
837	Locust, Black	9	2-Good	2-Good	
838	Maple, Sugar	11	2-Good	2-Good	
839	Maple, Sugar	9	2-Good	2-Good	
840	Maple, Black	10	2-Good	2-Good	
841	Maple, Black	17	2-Good	2-Good	
842	Elm, American	9	4-Poor	3-Fair	X
843	Maple, Sugar	7	3-Fair	2-Good	X
844	Maple, Sugar	14	2-Good	3-Fair	X
845	Oak, Northern Red	6	2-Good	2-Good	X
846	Maple, Sugar	17	2-Good	2-Good	X
847	Oak, White	22	2-Good	2-Good	X
848	Basswood, American	7	2-Good	2-Good	X
849	Oak, Northern Pin	6	3-Fair	3-Fair	X
850	Oak, Northern Pin	9	2-Good	2-Good	X
851	Maple, Sugar	6	2-Good	2-Good	X
852	Locust, Black	10	2-Good	3-Fair	X
853	Basswood, American	10	4-Poor	2-Good	X
854	Elm, American	19	2-Good	2-Good	X
855	Oak, Northern Red	12	2-Good	2-Good	X
856	Oak, Northern Red	8	2-Good	2-Good	X
857	Maple, Sugar	8	2-Good	2-Good	X
858	Maple, Sugar	12	2-Good	2-Good	X
859	Ash, White	27	5-Dead	5-Dead	X
860	Maple, Sugar	7	2-Good	2-Good	X
861	Basswood, American	6	2-Good	2-Good	X
862	Elm, American	11	2-Good	2-Good	X
863	Maple, Sugar	11	2-Good	2-Good	X
864	Locust, Black	11	2-Good	2-Good	X
865	Maple, Sugar	8	2-Good	2-Good	X
866	Basswood, American	21	2-Good	2-Good	X
867	Maple, Sugar	9	3-Fair	2-Good	X
868	Maple, Sugar	6	2-Good	2-Good	X
869	Locust, Black	10	3-Fair	2-Good	X
870	Elm, American	11	3-Fair	2-Good	X
871	Oak, Northern Pin	11	2-Good	2-Good	X
872	Maple, Sugar	16	2-Good	2-Good	X
873	Hickory, Bitternut	11	2-Good	2-Good	X
874	Basswood, American	10	3-Fair	2-Good	X
875	Maple, Sugar	6	3-Fair	3-Fair	X
876	Ash, White	8	3-Fair	2-Good	X
877	Maple, Sugar	9	2-Good	2-Good	X
878	Maple, Sugar	10	2-Good	2-Good	X
879	Elm, American	8	2-Good	2-Good	X
880	Basswood, American	19	2-Good	2-Good	X
881	Basswood, American	12	3-Fair	2-Good	X
882	Hickory, Bitternut	7	2-Good	2-Good	X
883	Maple, Sugar	14	4-Poor	3-Fair	X
884	Maple, Sugar	12	2-Good	2-Good	X
885	Maple, Sugar	14	3-Fair	2-Good	X
886	Locust, Black	11	3-Fair	3-Fair	
887	Maple, Sugar	8	4-Poor	4-Poor	X
888	Maple, Sugar	15	2-Good	2-Good	X
889	Maple, Sugar	12	2-Good	2-Good	
890	Maple, Sugar	20	2-Good	2-Good	X
891	Basswood, American	6	2-Good	3-Fair	
892	Basswood, American	6	2-Good	2-Good	
893	Maple, Sugar	17	4-Poor	4-Poor	
894	Maple, Sugar	12	2-Good	3-Fair	
895	Maple, Sugar	16	2-Good	2-Good	
896	Oak, Northern Red	14	2-Good	2-Good	
897	Maple, Sugar	10	2-Good	2-Good	
898	Oak, Northern Red	10	2-Good	3-Fair	
899	Maple, Sugar	10	2-Good	2-Good	
900	Maple, Sugar	7	2-Good	2-Good	
901	Oak, Northern Pin	13	2-Good	2-Good	
902	Maple, Sugar	11	2-Good	2-Good	
903	Maple, Sugar	7	2-Good	2-Good	
904	Maple, Sugar	7	2-Good	2-Good	
905	Maple, Sugar	7	2-Good	2-Good	
906	Oak, Northern Red	11	2-Good	2-Good	
907	Maple, Sugar	10	2-Good	2-Good	
908	Locust, Honey	13	2-Good	2-Good	
909	Hickory, Shagbark	27	2-Good	3-Fair	
910	Maple, Sugar	9	2-Good	2-Good	
911	Oak, Northern Pin	13	2-Good	2-Good	
912	Maple, Sugar	11	2-Good	2-Good	
913	Maple, Sugar	8	2-Good	2-Good	
914	Oak, Northern Pin	12	2-Good	2-Good	
915	Maple, Sugar	9	2-Good	2-Good	
916	Maple, Sugar	8	2-Good	2-Good	
917	Maple, Sugar	7	2-Good	2-Good	
918	Maple, Sugar	8	2-Good	2-Good	
919	Oak, Northern Red	8	3-Fair	2-Good	
920	Maple, Sugar	21	2-Good	2-Good	
921	Oak, White	24	2-Good	2-Good	X
922	Elm, American	9	2-Good	2-Good	
923	Basswood, American	16	2-Good	2-Good	X
924	Cottonwood, Eastern	25	2-Good	2-Good	
925	Elm, American	7	2-Good	2-Good	X
926	Maple, Sugar	7	2-Good	2-Good	X
927	Oak, Northern Red	10	2-Good	2-Good	X
928	Maple, Sugar	7	2-Good	2-Good	X
929	Maple, Sugar	9	2-Good	2-Good	X
930	Maple, Sugar	6	2-Good	2-Good	
931	Oak, Northern Red	21	2-Good	2-Good	
932	Locust, Black	26	4-Poor	3-Fair	
933	Oak, Northern Red	22	2-Good	2-Good	
934	Maple, Sugar	8	2-Good	2-Good	X
935	Maple, Sugar	6	2-Good	2-Good	
936	Oak, Northern Red	16	2-Good	2-Good	
937	Oak, Northern Pin	8	2-Good	2-Good	
938	Oak, White	11	2-Good	2-Good	
939	Maple, Sugar	7	2-Good	2-Good	
940	Maple, Sugar	9	2-Good	2-Good	X
941	Maple, Sugar	8	2-Good	2-Good	X
942	Maple, Sugar	7	2-Good	2-Good	X
943	Maple, Sugar	6	2-Good	2-Good	
944	Elm, American	6	3-Fair	2-Good	X
945	Maple, Sugar	8	2-Good	2-Good	
946	Maple, Sugar	7	2-Good	2-Good	
947	Oak, Northern Red	10	2-Good	2-Good	
948	Maple, Sugar	7	2-Good	3-Fair	X
949	Oak, Northern Red	34	1-Excellent	1-Excellent	
950	Maple, Sugar	6	2-Good	3-Fair	X
951	Maple, Sugar	8	2-Good	2-Good	X
952	Maple, Sugar	7	2-Good	2-Good	X
953	Oak, Northern Red	10	4-Poor	3-Fair	X
954	Basswood, American	6	2-Good	2-Good	
955	Basswood, American	10	2-Good	2-Good	
956	Basswood, American	11	2-Good	2-Good	
957	Basswood, American	11	2-Good	2-Good	
958	Basswood, American	12	2-Good	2-Good	
959	Basswood, American	7	2-Good	2-Good	
960	Basswood, American	13	4-Poor	3-Fair	
961	Basswood, American	11	3-Fair	3-Fair	

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TREE SURVEY A

SHEET

74

OF 76

PLOT DATE: 1/29/2021 10:24 AM

Tree Tag Number	Tree Species	DBH (Inches)	Structural Condition	Health Condition	Removals
962	Basswood, American	6	4-Poor	2-Good	
963	Basswood, American	14	3-Fair	2-Good	
964	Oak, White	14	3-Fair	3-Fair	
965	Oak, Northern Red	27	4-Poor	4-Poor	
966	Oak, Northern Pin	16	3-Fair	2-Good	
967	Oak, Northern Red	26	2-Good	2-Good	
968	Maple, Sugar	7	2-Good	2-Good	
969	Oak, Northern Red	21	2-Good	2-Good	
970	Maple, Sugar	6	2-Good	2-Good	
971	Maple, Sugar	9	2-Good	2-Good	
972	Elm, American	10	5-Dead	5-Dead	
973	Elm, American	6	5-Dead	5-Dead	
974	Maple, Sugar	6	2-Good	2-Good	
975	Basswood, American	17	2-Good	2-Good	
976	Basswood, American	11	2-Good	2-Good	
977	Oak, Northern Pin	12	3-Fair	2-Good	
978	Maple, Sugar	9	2-Good	2-Good	
979	Maple, Sugar	6	2-Good	2-Good	
980	Maple, Sugar	8	2-Good	2-Good	
981	Maple, Sugar	9	2-Good	2-Good	
982	Ash, White	27	2-Good	2-Good	
983	Hickory, Bitternut	10	2-Good	2-Good	
984	Hickory, Bitternut	12	2-Good	2-Good	
985	Locust, Black	13	2-Good	3-Fair	
986	Basswood, American	16	2-Good	2-Good	
987	Elm, American	6	2-Good	2-Good	
988	Elm, American	6	2-Good	2-Good	
989	Elm, American	6	5-Dead	5-Dead	
990	Locust, Black	15	3-Fair	3-Fair	
991	Maple, Sugar	9	2-Good	2-Good	
992	Locust, Black	14	2-Good	2-Good	
993	Maple, Sugar	8	2-Good	2-Good	
994	Elm, American	11	2-Good	2-Good	
995	Ash, White	11	2-Good	2-Good	
996	Maple, Sugar	10	2-Good	2-Good	
997	Maple, Sugar	7	2-Good	2-Good	
998	Maple, Sugar	10	2-Good	2-Good	
999	Oak, Northern Red	13	2-Good	2-Good	
1000	Maple, Sugar	8	2-Good	2-Good	
1001	Maple, Sugar	10	2-Good	2-Good	
1002	Maple, Sugar	12	2-Good	2-Good	
1003	Maple, Sugar	7	2-Good	2-Good	
1004	Maple, Sugar	11	2-Good	2-Good	
1005	Maple, Sugar	11	2-Good	2-Good	
1006	Spruce, White	20	2-Good	2-Good	X
1007	Spruce, White	24	2-Good	2-Good	X
1008	Spruce, White	6	3-Fair	3-Fair	X
1009	Spruce, White	15	2-Good	2-Good	X
1010	Spruce, White	13	2-Good	3-Fair	X
1011	Spruce, White	9	3-Fair	3-Fair	X
1012	Spruce, White	12	2-Good	2-Good	X
1013	Spruce, White	13	2-Good	2-Good	X
1014	Spruce, White	9	2-Good	3-Fair	X
1015	Spruce, White	15	2-Good	2-Good	X
1016	Spruce, White	15	2-Good	2-Good	X
1017	Spruce, White	7	3-Fair	2-Good	X
1018	Oak, White	35	1-Excellent	2-Good	X
1019	Walnut, Black	19	2-Good	2-Good	X
1020	Spruce, White	20	2-Good	2-Good	X
1021	Walnut, Black	25	2-Good	2-Good	X
1022	Spruce, White	25	2-Good	2-Good	X
1023	Spruce, White	14	2-Good	2-Good	X
1024	Spruce, White	12	2-Good	3-Fair	X
1025	Spruce, White	21	2-Good	2-Good	X
1026	Spruce, White	21	2-Good	2-Good	X
1027	Spruce, White	4	2-Good	2-Good	X
1028	Spruce, White	6	2-Good	2-Good	X
1029	Pine, Red	3	2-Good	2-Good	X
1030	Spruce, White	12	2-Good	3-Fair	X
1031	Spruce, White	8	2-Good	2-Good	X
1032	Spruce, White	12	2-Good	2-Good	X
1033	Oak, White	12	2-Good	2-Good	X
1034	Basswood, American	21	2-Good	3-Fair	X
1035	Elm, American	13	2-Good	3-Fair	X
1036	Elm, American	7	2-Good	3-Fair	
1037	Elm, American	9	2-Good	3-Fair	
1038	Elm, American	6	2-Good	3-Fair	
1039	Elm, American	13	2-Good	3-Fair	
1040	Elm, American	6	2-Good	3-Fair	
1041	Oak, White	37	1-Excellent	3-Fair	
1042	Oak, White	35	1-Excellent	3-Fair	
1043	Oak, White	27	2-Good	3-Fair	
1044	Oak, White	34	1-Excellent	3-Fair	
1045	Oak, White	49	1-Excellent	3-Fair	X
1046	Maple, Sugar	8	2-Good	3-Fair	
1047	Maple, Sugar	13	2-Good	3-Fair	
1048	Elm, American	6	2-Good	3-Fair	
1049	Ash, White	41	1-Excellent	3-Fair	
1050	Elm, American	6	2-Good	3-Fair	
1051	Oak, White	33	1-Excellent	3-Fair	
1052	Elm, American	10	2-Good	3-Fair	
1053	Elm, American	14	5-Dead	5-Dead	
1054	Oak, White	23	2-Good	3-Fair	
1055	Oak, Northern Red	8	2-Good	3-Fair	
1056	Oak, Northern Red	9	2-Good	3-Fair	
1057	Elm, American	8	2-Good	3-Fair	
1058	Basswood, American	12	2-Good	3-Fair	
1059	Hickory, Bitternut	8	2-Good	3-Fair	
1060	Oak, White	27	2-Good	3-Fair	
1061	Elm, American	12	5-Dead	5-Dead	
1062	Ash, White	15	2-Good	3-Fair	
1063	Oak, White	10	2-Good	3-Fair	
1064	Oak, White	38	1-Excellent	3-Fair	
1065	Elm, American	15	2-Good	3-Fair	
1066	Elm, American	10	2-Good	3-Fair	
1067	Oak, White	28	2-Good	3-Fair	
1068	Elm, American	8	2-Good	3-Fair	
1069	Oak, Bur	22	2-Good	3-Fair	
1070	Oak, Northern Red	32	1-Excellent	3-Fair	
1071	Elm, American	14	2-Good	3-Fair	
1072	Elm, American	8	2-Good	3-Fair	
1073	Elm, American	15	5-Dead	5-Dead	
1074	Oak, White	36	1-Excellent	3-Fair	
1075	Elm, American	6	2-Good	3-Fair	
1076	Oak, White	29	2-Good	3-Fair	
1077	Elm, American	6	2-Good	3-Fair	
1078	Oak, White	50	1-Excellent	3-Fair	
1079	Elm, American	8	5-Dead	5-Dead	
1080	Elm, American	10	2-Good	3-Fair	
1081	Elm, American	10	2-Good	3-Fair	
1082	Hackberry	15	2-Good	3-Fair	
1083	Ash, White	10	2-Good	3-Fair	
1084	Elm, American	7	2-Good	3-Fair	
1085	Elm, American	8	3-Fair	3-Fair	
1086	Elm, American	10	3-Fair	3-Fair	
1087	Oak, White	8	2-Good	3-Fair	
1088	Elm, American	7	2-Good	3-Fair	
1089	Oak, Northern Red	32	1-Excellent	3-Fair	
1090	Elm, American	6	3-Fair	3-Fair	
1091	Ash, White	10	2-Good	3-Fair	
1092	Ash, White	11	2-Good	3-Fair	
1093	Ash, White	9	2-Good	3-Fair	
1094	Ash, White	9	2-Good	3-Fair	
1095	Ash, White	11	3-Fair	3-Fair	
1096	Ash, White	9	3-Fair	3-Fair	
1097	Elm, American	7	2-Good	3-Fair	
1098	Elm, American	7	2-Good	3-Fair	
1099	Ash, White	11	2-Good	3-Fair	
1100	Ash, White	11	2-Good	3-Fair	
1101	Basswood, American	16	3-Fair	4-Poor	
1102	Basswood, American	13	3-Fair	3-Fair	
1103	Basswood, American	13	3-Fair	3-Fair	
1104	Basswood, American	13	3-Fair	3-Fair	
1105	Basswood, American	13	3-Fair	3-Fair	
1106	Elm, American	8	3-Fair	3-Fair	
1107	Basswood, American	6	3-Fair	3-Fair	
1108	Basswood, American	7	3-Fair	3-Fair	
1109	Basswood, American	7	3-Fair	3-Fair	
1110	Basswood, American	7	3-Fair	3-Fair	
1111	Maple, Sugar	10	3-Fair	3-Fair	
1112	Basswood, American	10	3-Fair	3-Fair	
1113	Basswood, American	7	3-Fair	3-Fair	
1114	Oak, Northern Red	16	3-Fair	3-Fair	
1115	Basswood, American	9	3-Fair	3-Fair	
1116	Oak, Northern Red	11	3-Fair	3-Fair	
1117	Oak, Northern Red	10	3-Fair	3-Fair	
1118	Basswood, American	10	3-Fair	3-Fair	
1119	Basswood, American	6	3-Fair	3-Fair	
1120	Maple, Sugar	12	3-Fair	3-Fair	
1121	Oak, White	27	2-Good	3-Fair	
1122	Oak, Black	24	4-Poor	3-Fair	
1123	Elm, American	9	3-Fair	3-Fair	
1124	Oak, White	24	2-Good	3-Fair	
1125	Maple, Sugar	12	3-Fair	3-Fair	
1126	Elm, American	15	2-Good	2-Good	
1127	Elm, American	9	3-Fair	3-Fair	
1128	Maple, Sugar	7	3-Fair	3-Fair	
1129	Maple, Sugar	7	3-Fair	3-Fair	
1130	Maple, Sugar	7	3-Fair	3-Fair	
1131	Maple, Sugar	7	3-Fair	3-Fair	
1132	Maple, Sugar	7	3-Fair	3-Fair	
1133	Maple, Sugar	8	3-Fair	3-Fair	
1134	Oak, Northern Red	8	3-Fair	3-Fair	
1135	Maple, Sugar	7	3-Fair	3-Fair	
1136	Oak, Northern Red	6	4-Poor	3-Fair	
1137	Basswood, American	7	2-Good	2-Good	
1138	Basswood, American	7	2-Good	2-Good	
1139	Elm, American	8	2-Good	2-Good	
1140	Maple, Sugar	6	3-Fair	3-Fair	
1141	Basswood, American	11	5-Dead	5-Dead	
1142	Oak, Northern Red	9	4-Poor	3-Fair	
1143	Oak, Northern Red	16	4-Poor	3-Fair	
1144	Basswood, American	7	3-Fair	3-Fair	
1145	Oak, Northern Red	15	3-Fair	3-Fair	
1146	Oak, Northern Red	12	3-Fair	2-Good	
1147	Basswood, American	7	3-Fair	2-Good	
1148	Oak, Northern Red	27	2-Good	2-Good	
1149	Elm, American	11	2-Good	2-Good	
1150	Elm, American	7	3-Fair	2-Good	
1151	Oak, Northern Red	10	2-Good	2-Good	
1152	Maple, Sugar	7	2-Good	2-Good	
1153	Hickory, Bitternut	7	2-Good	2-Good	
1154	Ash, White	7	2-Good	2-Good	
1155	Elm, American	6	2-Good	2-Good	
1156	Elm, American	8	2-Good	2-Good	
1158	Ash, White	24	2-Good	2-Good	
1157	Ash, White	24	2-Good	3-Fair	
1159	Ash, White	15	3-Fair	3-Fair	
1160	Ash, White	10	3-Fair	3-Fair	
1161	Ash, White	19	2-Good	3-Fair	
1162	Ash, White	8	3-Fair	3-Fair	
1163	Maple, Sugar	6	3-Fair	3-Fair	
1164	Maple, Sugar	6	3-Fair	3-Fair	
1165	Maple, Sugar	7	3-Fair	3-Fair	
1166	Maple, Sugar	9	3-Fair	3-Fair	
1168	Oak, White	34	2-Good	3-Fair	
1167	Oak, White	9	3-Fair	3-Fair	
1169	Basswood, American	9	4-Poor	3-Fair	
1170	Elm, American	7	4-Poor	4-Poor	
1171	Oak, Northern Red	24	4-Poor	3-Fair	
1172	Maple, Sugar	8	2-Good	2-Good	
1173	Elm, American	7	3-Fair	3-Fair	
1174	Oak, White	23	2-Good	3-Fair	
1175	Basswood, American	13	3-Fair	3-Fair	
1176	Oak, White	23	2-Good	3-Fair	
1177	Maple, Sugar	8	3-Fair	2-Good	
1178	Oak, White	25	2-Good	2-Good	
1179	Basswood, American	8	3-Fair	2-Good	
1180	Maple, Sugar	8	3-Fair	2-Good	
1181	Elm, American	8	5-Dead	5-Dead	
1182	Oak, White	29	2-Good	3-Fair	
1183	Elm, American	15	3-Fair	3-Fair	
1184	Hickory, Bitternut	7	3-Fair	3-Fair	
1185	Basswood, American	8	3-Fair	3-Fair	
1186	Oak, White	33	2-Good	3-Fair	
1187	Elm, American	6	3-Fair	3-Fair	
1188	Elm, American	8	3-Fair	3-Fair	
1189	Elm, American	6	3-Fair	3-Fair	
1190	Elm, American	8	3-Fair	3-Fair	
1191	Elm, American	8	3-Fair	3-Fair	
1192	Elm, American	8	3-Fair	3-Fair	
1193	Elm, American	8	3-Fair	3-Fair	
1194	Oak, Northern Red	21	2-Good	2-Good	
1195	Oak, White	33	2-Good	2-Good	
1196	Maple, Sugar	6	3-Fair	2-Good	
1197	Maple, Sugar	8	3-Fair	3-Fair	
1198	Basswood, American	15	3-Fair	3-Fair	
1199	Hickory, Bitternut	6	3-Fair	3-Fair	
1200	Elm, American	8	4-Poor	5-Dead	
1201	Elm, American	10	5-Dead	5-Dead	
1202	Elm, American	15	2-Good	2-Good	
1203	Maple, Sugar	6	2-Good	2-Good	
1204	Maple, Sugar	7	2-Good	2-Good	
1205	Hickory, Bitternut	12	2-Good	2-Good	
1206	Hickory, Bitternut	8	2-Good	2-Good	
1207	Elm, American	6	5-Dead	5-Dead	
1208	Oak, White	29	2-Good	2-Good	
1209	Basswood, American	7	2-Good	2-Good	
1210	Basswood, American	9	2-Good	2-Good	
1211	Basswood, American	11	2-Good	2-Good	
1212	Basswood, American	9	2-Good	2-Good	
1213	Elm, American	10	5-Dead	5-Dead	

ISG

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TREE SURVEY B

SHEET

75

OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/29/2021 10:24 AM

Tree Tag Number	Tree Species	DBH (Inches)	Structural Condition	Health Condition	Removals
1212	Basswood, American	9	2-Good	2-Good	
1213	Elm, American	10	5-Dead	5-Dead	
1214	Elm, American	7	5-Dead	5-Dead	
1215	Oak, Bur	41	1-Excellent	2-Good	
1216	Ash, White	8	2-Good	2-Good	
1217	Ash, White	8	2-Good	2-Good	
1218	Elm, American	8	3-Fair	3-Fair	
1219	Elm, American	9	5-Dead	5-Dead	
1220	Oak, Bur	29	2-Good	2-Good	
1221	Oak, Bur	34	1-Excellent	2-Good	
1222	Elm, American	7	5-Dead	5-Dead	
1223	Elm, American	10	3-Fair	3-Fair	
1224	Elm, American	6	3-Fair	3-Fair	
1225	Elm, American	6	5-Dead	5-Dead	
1226	Elm, American	6	3-Fair	3-Fair	
1227	Oak, White	29	2-Good	3-Fair	
1228	Basswood, American	13	3-Fair	3-Fair	
1229	Basswood, American	21	2-Good	3-Fair	
1230	Basswood, American	9	3-Fair	3-Fair	
1231	Hackberry	6	3-Fair	3-Fair	
1232	Oak, Northern Red	12	3-Fair	3-Fair	
1233	Ash, White	13	3-Fair	3-Fair	
1234	Maple, Sugar	9	3-Fair	3-Fair	
1235	Maple, Sugar	13	3-Fair	3-Fair	
1236	Hackberry	20	2-Good	3-Fair	
1237	Elm, American	16	5-Dead	3-Fair	
1238	Maple, Sugar	7	3-Fair	3-Fair	
1239	Hackberry	14	3-Fair	3-Fair	
1240	Maple, Sugar	24	2-Good	3-Fair	
1241	Maple, Sugar	6	3-Fair	3-Fair	
1242	Maple, Sugar	10	3-Fair	3-Fair	
1243	Elm, American	8	5-Dead	5-Dead	
1244	Maple, Sugar	7	3-Fair	3-Fair	
1245	Maple, Sugar	6	3-Fair	3-Fair	
1246	Oak, White	20	2-Good	3-Fair	
1247	Maple, Sugar	10	3-Fair	3-Fair	
1248	Maple, Sugar	10	3-Fair	3-Fair	
1249	Oak, White	15	3-Fair	3-Fair	
1250	Maple, Sugar	7	3-Fair	3-Fair	
1251	Maple, Sugar	7	3-Fair	3-Fair	
1252	Maple, Sugar	8	3-Fair	3-Fair	
1253	Maple, Sugar	10	3-Fair	3-Fair	
1254	Oak, Northern Red	14	3-Fair	3-Fair	
1255	Oak, White	19	2-Good	3-Fair	
1256	Maple, Sugar	8	3-Fair	3-Fair	
1257	Elm, American	10	5-Dead	5-Dead	
1258	Maple, Sugar	7	3-Fair	3-Fair	
1259	Maple, Sugar	7	3-Fair	3-Fair	
1260	Maple, Sugar	7	3-Fair	3-Fair	
1261	Hackberry	10	3-Fair	3-Fair	
1262	Maple, Sugar	10	3-Fair	3-Fair	
1263	Basswood, American	6	3-Fair	3-Fair	
1264	Oak, White	21	2-Good	3-Fair	
1265	Maple, Sugar	12	3-Fair	3-Fair	
1266	Maple, Sugar	9	3-Fair	3-Fair	
1267	Maple, Sugar	13	3-Fair	3-Fair	
1268	Oak, White	13	3-Fair	3-Fair	
1269	Maple, Sugar	8	3-Fair	3-Fair	
1270	Maple, Sugar	6	3-Fair	3-Fair	
1271	Oak, White	27	2-Good	3-Fair	
1272	Oak, White	16	3-Fair	3-Fair	
1273	Maple, Sugar	16	3-Fair	3-Fair	
1274	Maple, Sugar	7	3-Fair	3-Fair	
1275	Hackberry	13	3-Fair	3-Fair	
1276	Maple, Sugar	14	3-Fair	3-Fair	
1277	Maple, Sugar	7	3-Fair	3-Fair	
1278	Maple, Sugar	7	3-Fair	3-Fair	
1279	Maple, Sugar	19	2-Good	3-Fair	
1280	Ash, White	18	2-Good	3-Fair	
1281	Oak, White	11	3-Fair	3-Fair	X
1282	Oak, White	10	3-Fair	3-Fair	X
1283	Ash, White	15	3-Fair	3-Fair	X
1284	Maple, Sugar	13	3-Fair	3-Fair	
1285	Maple, Sugar	8	3-Fair	3-Fair	
1286	Maple, Sugar	7	3-Fair	3-Fair	
1287	Maple, Sugar	10	3-Fair	3-Fair	
1288	Maple, Sugar	7	3-Fair	3-Fair	
1289	Maple, Sugar	7	3-Fair	3-Fair	
1290	Maple, Sugar	8	3-Fair	2-Good	
1291	Maple, Sugar	7	3-Fair	3-Fair	
1292	Maple, Sugar	8	3-Fair	3-Fair	
1293	Maple, Sugar	11	3-Fair	3-Fair	
1294	Maple, Sugar	15	3-Fair	3-Fair	
1295	Maple, Sugar	13	3-Fair	3-Fair	
1296	Maple, Sugar	6	3-Fair	3-Fair	
1297	Maple, Sugar	8	3-Fair	3-Fair	
1298	Maple, Sugar	11	3-Fair	3-Fair	
1299	Maple, Sugar	11	3-Fair	3-Fair	
1300	Maple, Sugar	13	3-Fair	3-Fair	
1301	Maple, Sugar	16	3-Fair	3-Fair	
1302	Maple, Sugar	11	3-Fair	3-Fair	
1303	Oak, White	25	2-Good	3-Fair	
1304	Ash, White	6	3-Fair	3-Fair	
1305	Maple, Sugar	9	3-Fair	3-Fair	
1306	Maple, Sugar	6	3-Fair	3-Fair	
1307	Maple, Sugar	8	3-Fair	3-Fair	
1308	Maple, Sugar	6	3-Fair	3-Fair	
1309	Ironwood	20	2-Good	3-Fair	
1310	Elm, American	21	2-Good	3-Fair	
1311	Oak, White	13	3-Fair	3-Fair	
1312	Elm, American	14	3-Fair	3-Fair	
1313	Oak, White	18	2-Good	3-Fair	
1314	Elm, American	15	3-Fair	3-Fair	
1315	Oak, White	15	3-Fair	3-Fair	
1316	Maple, Sugar	7	3-Fair	3-Fair	
1317	Maple, Sugar	13	3-Fair	3-Fair	
1318	Oak, Northern Red	15	3-Fair	3-Fair	
1319	Maple, Sugar	6	3-Fair	3-Fair	
1320	Maple, Sugar	9	3-Fair	3-Fair	
1321	Maple, Sugar	13	3-Fair	3-Fair	
1322	Maple, Sugar	9	3-Fair	3-Fair	
1323	Maple, Sugar	8	3-Fair	3-Fair	
1324	Maple, Sugar	8	3-Fair	3-Fair	
1325	Maple, Sugar	9	3-Fair	3-Fair	
1326	Oak, Northern Red	20	2-Good	3-Fair	
1327	Oak, Northern Red	11	3-Fair	3-Fair	
1328	Maple, Sugar	17	3-Fair	3-Fair	
1329	Maple, Sugar	6	3-Fair	3-Fair	
1330	Oak, Northern Red	26	2-Good	3-Fair	
1331	Oak, Northern Red	13	3-Fair	3-Fair	
1332	Maple, Sugar	9	5-Dead	5-Dead	
1333	Maple, Sugar	8	5-Dead	5-Dead	
1334	Maple, Sugar	9	3-Fair	3-Fair	
1335	Elm, American	10	3-Fair	4-Poor	
1336	Ash, White	6	3-Fair	3-Fair	
1337	Ash, White	6	3-Fair	3-Fair	
1338	Ash, White	9	3-Fair	3-Fair	
1339	Ash, White	12	3-Fair	3-Fair	
1340	Ash, White	12	3-Fair	3-Fair	
1341	Ash, White	11	3-Fair	3-Fair	
1342	Ash, White	29	2-Good	3-Fair	
1344	Elm, American	13	3-Fair	3-Fair	
1343	Ash, White	29	2-Good	3-Fair	
1345	Elm, American	7	3-Fair	3-Fair	
1346	Ash, White	9	3-Fair	3-Fair	X
1347	Elm, American	11	3-Fair	3-Fair	X
1348	Ash, White	12	3-Fair	3-Fair	X
1349	Ash, White	10	3-Fair	3-Fair	X
1350	Ash, White	9	3-Fair	3-Fair	X
1351	Ash, White	26	2-Good	3-Fair	X
1352	Maple, Sugar	9	3-Fair	3-Fair	X
1353	Ash, White	16	3-Fair	3-Fair	X
1354	Hickory, Bitternut	8	3-Fair	3-Fair	X
1355	Ash, White	9	3-Fair	3-Fair	
1356	Maple, Sugar	7	3-Fair	3-Fair	
1357	Elm, American	17	3-Fair	3-Fair	
1358	Oak, White	8	3-Fair	3-Fair	
1359	Oak, White	32	2-Good	3-Fair	
1360	Ash, White	8	3-Fair	3-Fair	
1361	Maple, Sugar	6	3-Fair	3-Fair	
1362	Ash, White	7	3-Fair	3-Fair	
1363	Ash, White	7	3-Fair	3-Fair	
1364	Ash, White	11	3-Fair	3-Fair	X
1365	Ash, White	14	3-Fair	3-Fair	X
1366	Ash, White	7	3-Fair	3-Fair	X
1367	Ash, White	12	3-Fair	3-Fair	X
1368	Ash, White	11	3-Fair	3-Fair	X
1369	Ash, White	11	3-Fair	3-Fair	X
1370	Elm, American	8	3-Fair	3-Fair	X
1371	Oak, Northern Red	17	3-Fair	3-Fair	X
1372	Oak, Northern Red	15	3-Fair	3-Fair	X
1373	Maple, Sugar	12	3-Fair	3-Fair	X
1374	Maple, Sugar	11	3-Fair	3-Fair	X
1375	Ash, White	8	3-Fair	3-Fair	X
1376	Hackberry	12	3-Fair	3-Fair	X
1377	Hackberry	17	3-Fair	3-Fair	X
1378	Hackberry	7	3-Fair	3-Fair	X
1379	Ash, White	6	3-Fair	3-Fair	X
1380	Boxelder	10	3-Fair	3-Fair	X
1381	Elm, American	8	5-Dead	5-Dead	X
1382	Ash, White	7	3-Fair	3-Fair	X
1383	Ash, White	7	3-Fair	3-Fair	X
1384	Boxelder	9	3-Fair	3-Fair	X
1385	Ash, White	13	3-Fair	3-Fair	
1386	Hickory, Bitternut	6	3-Fair	3-Fair	
1387	Ash, White	20	2-Good	3-Fair	
1388	Ash, White	11	3-Fair	3-Fair	
1389	Maple, Sugar	10	3-Fair	3-Fair	X
1390	Elm, American	7	5-Dead	5-Dead	X
1391	Ash, White	13	3-Fair	3-Fair	
1392	Ash, White	8	3-Fair	3-Fair	
1393	Ash, White	8	3-Fair	3-Fair	
1394	Ash, White	10	3-Fair	3-Fair	
1395	Ash, White	8	3-Fair	3-Fair	
1396	Hackberry	13	3-Fair	3-Fair	
1397	Maple, Sugar	8	3-Fair	3-Fair	
1398	Maple, Sugar	8	3-Fair	3-Fair	
1399	Oak, Northern Red	8	3-Fair	3-Fair	
1400	Oak, White	23	2-Good	3-Fair	
1401	Oak, White	22	2-Good	3-Fair	
1402	Oak, Northern Red	10	3-Fair	3-Fair	
1403	Oak, White	33	2-Good	3-Fair	
1404	Oak, White	39	2-Good	3-Fair	
1405	Boxelder	8	3-Fair	3-Fair	
1406	Maple, Sugar	10	3-Fair	3-Fair	
1407	Maple, Sugar	6	3-Fair	3-Fair	
1408	Ash, White	6	3-Fair	3-Fair	
1409	Oak, Northern Red	25	2-Good	3-Fair	X
1410	Elm, American	7	3-Fair	3-Fair	
1411	Ash, White	9	3-Fair	3-Fair	
1412	Cherry, Black	9	3-Fair	3-Fair	
1413	Maple, Sugar	7	3-Fair	3-Fair	
1414	Maple, Sugar	7	3-Fair	3-Fair	
1415	Maple, Sugar	7	3-Fair	3-Fair	
1416	Maple, Sugar	9	4-Poor	3-Fair	
1417	Elm, American	6	3-Fair	3-Fair	
1418	Oak, White	37	2-Good	3-Fair	
1419	Elm, American	8	3-Fair	3-Fair	
1420	Elm, American	7	3-Fair	3-Fair	
1421	Elm, American	10	3-Fair	3-Fair	
1422	Oak, White	36	2-Good	3-Fair	
1423	Elm, American	10	5-Dead	5-Dead	
1424	Elm, American	10	3-Fair	3-Fair	
1425	Elm, American	14	3-Fair	3-Fair	
1426	Elm, American	13	3-Fair	3-Fair	
1427	Ash, White	14	3-Fair	3-Fair	
1428	Elm, American	7	3-Fair	3-Fair	
1429	Ash, White	11	3-Fair	3-Fair	
1430	Ash, White	7	3-Fair	3-Fair	
1431	Oak, White	30	2-Good	3-Fair	
1432	Ash, White	20	2-Good	3-Fair	
1433	Maple, Sugar	10	3-Fair	3-Fair	

TREE PRESERVATION SUMMARY

722 SURVEYED TREES MEETING ORDINANCE THRESHOLD
139 TOTAL PROPOSED REMOVALS

SIGNIFICANT TREES
262 TOTAL
46 PROPOSED REMOVAL, 7 OF WHICH ARE DEAD

ISG

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JERREMY D. FOSS

DATE _____ LIC. NO. 55871

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PROJECT

LENNAR

RESERVE AT AUTUMN WOODS

CHASKA MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
1/27/22	CITY COMMENTS	JRS

PROJECT NO.	21-24984
FILE NAME	24984 TREE PRES
DRAWN BY	JRS
DESIGNED BY	JRS
REVIEWED BY	JDF
ORIGINAL ISSUE DATE	01/03/22
CLIENT PROJECT NO.	-

TITLE

TREE SURVEY C

SHEET

76 OF 76

PRELIMINARY NOT FOR CONSTRUCTION

PLOT DATE: 12/29/2021 10:24 AM

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: **Lot Split for Kelzer and Chaska Investments Properties**

Applicant: DR Horton

Location: West of Clover Ridge Drive, south of Twin Cities & Western Railroad

Case Number: P.C. No. 2022-24

Synopsis: The applicant is requesting approval of two Lot Splits for both the properties owned by the Kelzer family and Chaska Investments

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt Resolution approving the request

---

Background

The Kelzer property at PID #070360800 and the Chaska Investments property at PID #300970350 (Outlot A of Clover Preserve 2nd Addition) are being looked at for the development of Oak Creek being proposed by DR Horton. Oak Creek is a single-family development totaling 102 lots. Concept Plan approval for this development was achieved in December 2021. The developer is in the middle of receiving preliminary approvals this month.

It should be noted that the lot splits are only being approved to facilitate the closings on the land that are owned by the Kelzer family and Chaska Investments. The developer will still be required to go through the remaining approvals (i.e. Final Plat), and that the Developer will still pay all costs and fees associated with re-platting.

Request

The applicant, DR Horton, is requesting two lot splits; one on the property owned by the Kelzer family (PID #070360800); one on the property owned by Chaska Investments (PID #300970350).

The lot split approval on the Kelzer property will allow for the formal splitting of the lot to be two separate parcels. Parcel A will ultimately be sold off to DR Horton, and Parcel B will be retained by the Kelzer family.

The lot split approval on the Chaska Investments property will allow for the formal splitting of the outlot (Outlot A of Clover Preserve 2nd Addition) to be two separate parcels. Parcel A will ultimately be sold off to DR Horton, and Parcel B will be retained by Chaska Investments.

Analysis
The proposed areas are located in the Open (O) (Kelzer) and Planned Multi-Use (PMD-15) (Chaska Investments) zoning districts. Splitting the parcels will not render the parcels in violation of the Zoning Ordinance.

CITY COUNCIL ACTION REQUESTED
Motion to adopt Resolution 2022-45, approving the Lot Splits on the Kelzer and Chaska Investments properties, subject to the stipulations included in said resolution and the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Lot Split (Kelzer), prepared by Westwood, dated March 9, 2022 and revised March 16, 2022
    b. Lot Split (Chaska Investments; Outlot A Clover Preserve 2nd Addition), prepared by Westwood, dated March 9, 2022

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE APRIL 18, 2022 RESOLUTION NO. 2022-45

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the two Lot Splits on the properties owned by the Kelzer Family and Chaska Investments/DR Horton/P.C. No. 2022-24

WHEREAS, the Kelzer property at PID #070360800 and the Chaska Investments property at PID #300970350 (Outlot A of Clover Preserve 2nd Addition) are being looked at for the development of Oak Creek being proposed by DR Horton; and

WHEREAS, Oak Creek is a single-family development totaling 102 lots; and

WHEREAS, Concept Plan approval for this development was achieved in December 2021; and

WHEREAS, it should be noted that the lot splits are only being approved to facilitate the closings on the land that are owned by the Kelzer family and Chaska Investments; and

WHEREAS, the developer will still be required to go through the remaining approvals (i.e. Final Plat), and that the Developer will still pay all costs and fees associated with re-platting; and

WHEREAS, the applicant, DR Horton, is requesting two lot splits; one on the property owned by the Kelzer family (PID #070360800); one on the property owned by Chaska Investments (PID #300970350); and

WHEREAS, the lot split approval on the Kelzer property will allow for the formal splitting of the lot to be two separate parcels; and

WHEREAS, Parcel A will ultimately be sold off to DR Horton, and Parcel B will be retained by the Kelzer family; and

WHEREAS, the lot split approval on the Chaska Investments property will allow for the formal splitting of the outlot (Outlot A of Clover Preserve 2nd Addition) to be two separate parcels; and

WHEREAS, Parcel A will ultimately be sold off to DR Horton, and Parcel B will be retained by Chaska Investments; and

WHEREAS, the proposed areas are located in the Open (O) (Kelzer) and Planned Multi-Use (PMD-15) (Chaska Investments) zoning districts; and

WHEREAS, splitting the parcels will not render the parcels in violation of the Zoning Ordinance; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Lot Splits for the properties owned by the Kelzer Family (PID #070360800) and Chaska Investments (PID #300970350) (PC#2022-24), subject to the aforementioned stipulations and the following conditions:

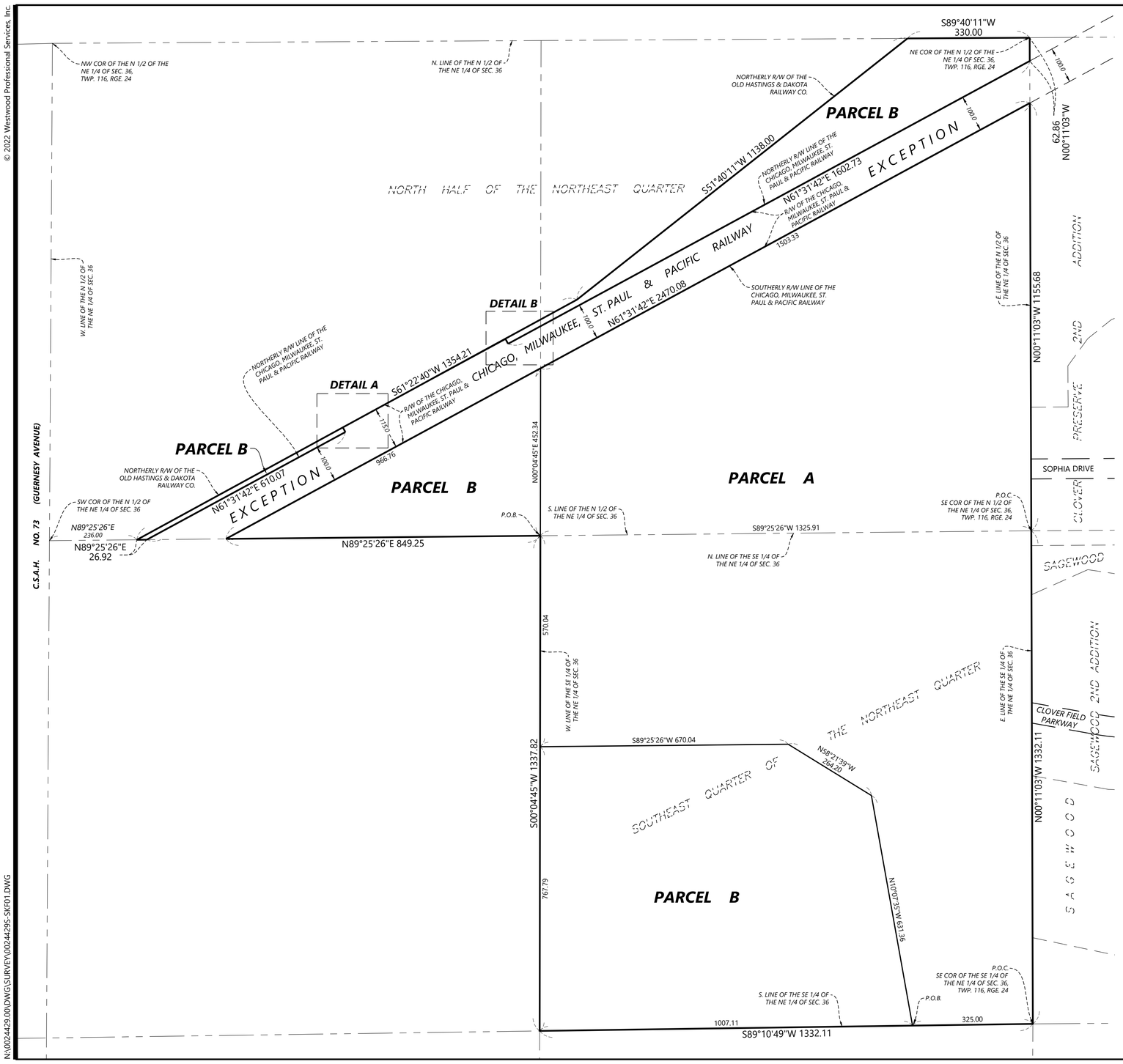
1. Approvals shall be based on the following graphic exhibits:
   a. Lot Split (Kelzer), prepared by Westwood, dated March 9, 2022 and revised March 16, 2022
   b. Lot Split (Chaska Investments; Outlot A Clover Preserve 2nd Addition), prepared by Westwood, dated March 9, 2022

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

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EXISTING DESCRIPTION:

Tract 1:
The Southeast Quarter of the Northeast Quarter (SE 1/4 of NE 1/4) of Section 36, Township 116 North, Range 24 West of the Fifth Principal Meridian.

(Abstract)

Tract 2:
All that part of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of Section 36, Township 116, Range 24, lying Southerly of the Northerly boundary line of the old right of way of the Hastings and Dakota Railway Co. as located prior to the year 1912, and described by metes and bounds, as follows: Beginning at the Northeast corner of said Section 36, running thence West on the North line of said Section 36, 330 feet to a point on the Northerly boundary line of said right of way; thence South 52 degrees West along said boundary line 1138 feet; thence South 61 degrees, 5 minutes West along said boundary line 1357 feet to a point on the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, said point being 236 feet East from the Southwest corner of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36 thence East along the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, to the Southeast corner thereof; thence North on the section line to the place of beginning, EXCEPTING THEREFROM the right of way of the Chicago, Milwaukee and St. Paul Railway Co. as now located across said land as conveyed by deed, recorded in the office of the County Recorder, Carver County, Minnesota, in Book 23 of Deeds on page 304.

Area: 73.65 acres

(Abstract)

PROPOSED PARCEL A DESCRIPTION:

That part of the North Half of the Northeast Quarter and that part of the Southeast Quarter of the Northeast Quarter, all in Section 36, Township 116, Range 24, Carver County, Minnesota, lying southerly of the southerly right of way line of the Chicago, Milwaukee, St. Paul and Pacific Railway, EXCEPTING THEREFROM the following two parcels:

1.) Commencing at the southeast corner of said Southeast Quarter of the Northeast Quarter; thence South 89 degrees 10 minutes 49 seconds West, assumed bearing along the south line of said Southeast Quarter of the Northeast Quarter, a distance of 325.00 feet to the point of beginning; thence North 10 degrees 07 minutes 35 seconds West, a distance of 631.36 feet; thence North 58 degrees 21 minutes 39 seconds West, a distance of 264.20 feet; thence South 89 degrees 25 minutes 26 seconds West, a distance of 670.04 feet to the west line of said Southeast Quarter of the Northeast Quarter; thence South 00 degrees 04 minutes 45 seconds West, along said west line a distance of 767.79 feet to said south line of the Southeast Quarter of the Northeast Quarter; thence North 89 degrees 10 minutes 49 seconds East, along said south line, a distance of 1007.11 feet to the point of beginning.

2.) Commencing at the southeast corner of said North Half of the Northeast Quarter; thence South 89 degrees 25 minutes 26 seconds West, assumed bearing along the south line of said North Half of the Northeast Quarter, a distance of 1325.91 feet to the east line of the Northeast Quarter of the Northeast Quarter of said Section 36 and the point of beginning; thence North 00 degrees 04 minutes 45 seconds East, along said east line, a distance of 452.34 feet to the southerly right of way line of the Chicago, Milwaukee, St. Paul and Pacific Railway; thence South 61 degrees 31 minutes 42 seconds West, along said southerly right of way line,a distance of 966.76 feet to said south line of the North Half of the Northeast Quarter; thence North 89 degrees 25 minutes 26 seconds East, along said south line, a distance of 849.25 feet to the point of beginning.

Area: 49.00 acres

PROPOSED PARCEL B DESCRIPTION:

That part of the following described property lying northerly of the northerly right of way line of the Chicago, Milwaukee, St. Paul and Pacific Railway:

All that part of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of Section 36, Township 116, Range 24, lying Southerly of the Northerly boundary line of the old right of way of the Hastings and Dakota Railway Co. as located prior to the year 1912, and described by metes and bounds, as follows: Beginning at the Northeast corner of said Section 36, running thence South 89 degrees 40 minutes 11 seconds West, assumed bearing along the north line of said North Half of the Northeast Quarter, a distance of 330.00 feet to a point on the Northerly boundary line of said right of way; thence South 51 degrees 40 minutes 11 seconds West along said boundary line 1138.00 feet; thence South 61 degrees 22 minutes 40 seconds West continuing along said boundary line 1354.21 feet to a point on the south line of said North Half of the Northeast Quarter, said point being 236.00 feet East from the southwest corner of said North Half of the Northeast Quarter; thence East along the South line of said North Half of the Northeast Quarter to the southeast corner of said North Half of the Northeast Quarter; thence North along the east line of said North Half of the Northeast Quarter to the place of beginning.

AND

That part of the Southeast Quarter of the Northeast Quarter in Section 36, Township 116, Range 24, Carver County, Minnesota, described as follows:

Commencing at the southeast corner of said Southeast Quarter of the Northeast Quarter; thence South 89 degrees 10 minutes 49 seconds West, assumed bearing along the south line of said Southeast Quarter of the Northeast Quarter, a distance of 325.00 feet to the point of beginning; thence North 10 degrees 07 minutes 35 seconds West, a distance of 631.36 feet; thence North 58 degrees 21 minutes 39 seconds West, a distance of 264.20 feet; thence South 89 degrees 25 minutes 26 seconds West, a distance of 670.04 feet to the west line of said Southeast Quarter of the Northeast Quarter; thence South 00 degrees 04 minutes 45 seconds West, along said west line a distance of 767.79 feet to said south line of the Southeast Quarter of the Northeast Quarter; thence North 89 degrees 10 minutes 49 seconds East, along said south line, a distance of 1007.11 feet to the point of beginning.

AND

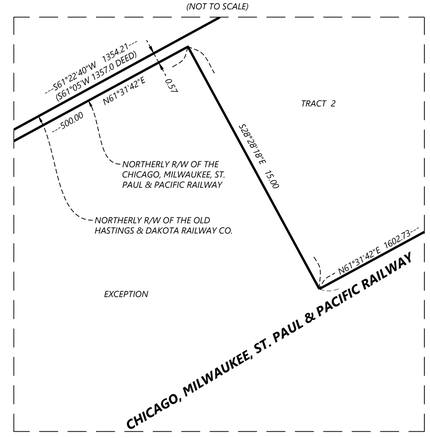
That part of the North Half of the Northeast Quarter in Section 36, Township 116, Range 24, Carver County, Minnesota, described as follows:

Commencing at the southeast corner of said North Half of the Northeast Quarter; thence South 89 degrees 25 minutes 26 seconds West, assumed bearing along the south line of said North Half of the Northeast Quarter, a distance of 1325.91 feet to the east line of the Northeast Quarter of the Northeast Quarter of said Section 36 and the point of beginning; thence North 00 degrees 04 minutes 45 seconds East, along said east line, a distance of 452.34 feet to the southerly right of way line of the Chicago, Milwaukee, St. Paul and Pacific Railway; thence South 61 degrees 31 minutes 42 seconds West, along said southerly right of way line,a distance of 966.76 feet to said south line of the North Half of the Northeast Quarter; thence North 89 degrees 25 minutes 26 seconds East, along said south line, a distance of 849.25 feet to the point of beginning.

Area: 24.65 acres

DETAIL A
(NOT TO SCALE)

DETAIL B
(NOT TO SCALE)



1" = 150'

0' 150' 300' 450'

DESIGNED: .
CHECKED: MJW
DRAWN: SRM
HORIZONTAL SCALE: 150
VERTICAL SCALE:

INITIAL ISSUE: 03/09/2022
REVISIONS:
03/16/2022 ADJUSTED PARCEL LINE

PREPARED FOR:

D.R. HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

OAK CREEK

CHASKA, MINNESOTA

Westwood

Phone (952) 937-5150
Fax (952) 937-5822
Toll Free (888) 937-5150
12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343
westwoodps.com

Westwood Professional Services, Inc.

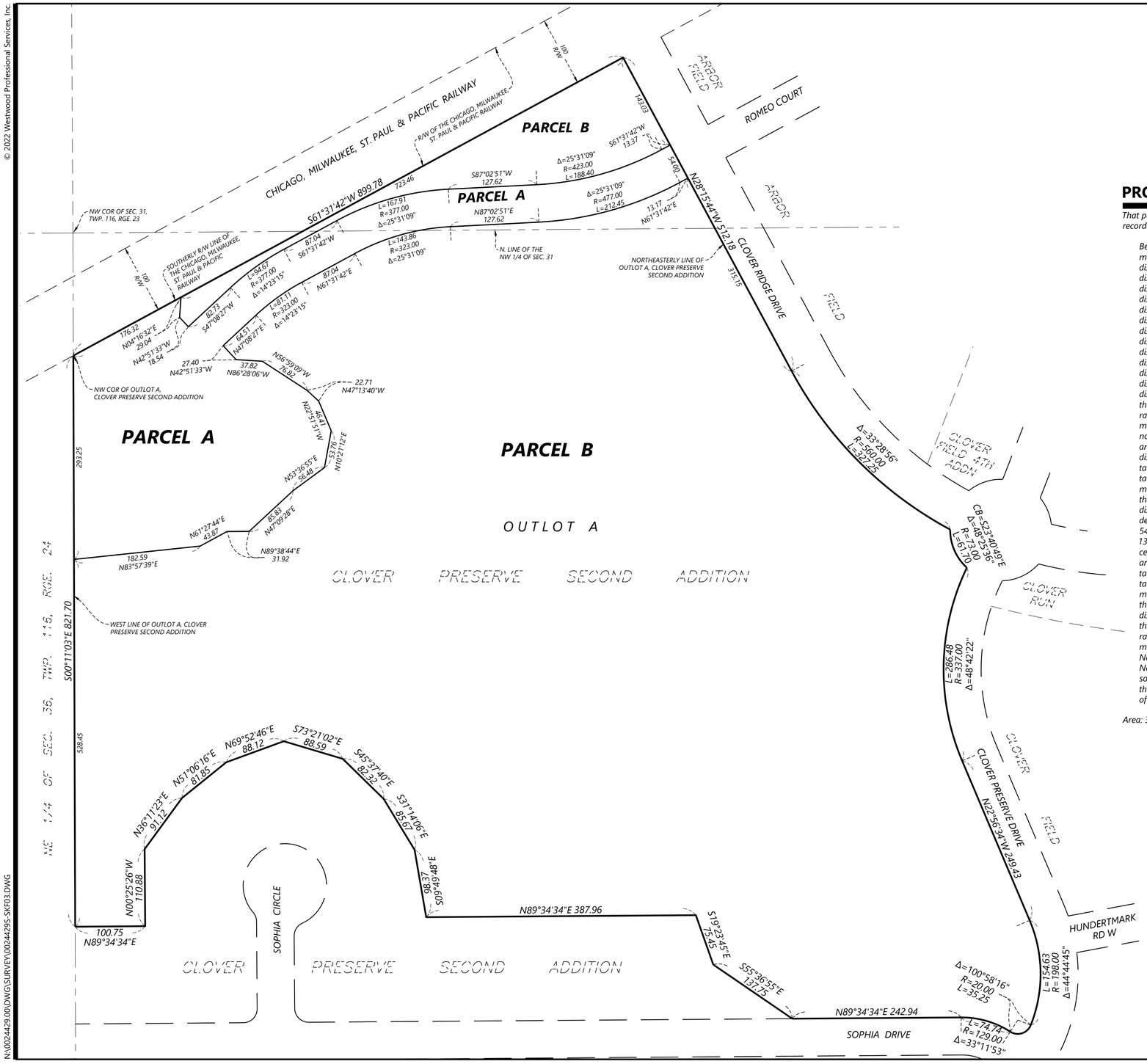
LOT SPLIT

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 1 OF 1

DATE: 03/09/2022

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Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

EXISTING DESCRIPTION:

Outlot A, CLOVER PRESERVE SECOND ADDITION, according to the recorded plat thereof, Carver County, Minnesota.

Area: 27.64 acres

PROPOSED PARCEL A DESCRIPTION:

That part of Outlot A, CLOVER PRESERVE SECOND ADDITION, according to the recorded plat thereof, Carver County, Minnesota, described as follows:

Beginning at the northwest corner of said Outlot A; thence South 00 degrees 11 minutes 03 seconds East, assumed bearing along the west line of said Outlot A, a distance of 293.25 feet; thence North 83 degrees 57 minutes 39 seconds East, a distance of 182.59 feet; thence North 61 degrees 27 minutes 44 seconds East, a distance of 43.87 feet; thence North 89 degrees 38 minutes 44 seconds East, a distance of 31.92 feet; thence North 47 degrees 09 minutes 28 seconds East, a distance of 85.83 feet; thence North 53 degrees 36 minutes 55 seconds East, a distance of 56.48 feet; thence North 10 degrees 21 minutes 12 seconds East, a distance of 53.76 feet; thence North 22 degrees 51 minutes 51 seconds West, a distance of 46.41 feet; thence North 47 degrees 13 minutes 40 seconds West, a distance of 22.71 feet; thence North 56 degrees 59 minutes 09 seconds West, a distance of 76.82 feet; thence North 86 degrees 28 minutes 06 seconds West, a distance of 37.82 feet; thence North 42 degrees 51 minutes 33 seconds West, a distance of 27.40 feet; thence North 47 degrees 08 minutes 27 seconds East, a distance of 64.51 feet; thence northeasterly along a tangential curve concave to the southeast having a central angle of 14 degrees 23 minutes 15 seconds, a radius of 323.00 feet for an arc distance of 81.11 feet; thence North 61 degrees 31 minutes 42 seconds East, tangent to said curve a distance of 87.04 feet; thence northeasterly along a tangential curve concave to the southeast having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 323.00 feet for an arc distance of 143.86 feet; thence North 87 degrees 02 minutes 51 seconds East, tangent to said curve, a distance of 127.62 feet; thence northeasterly along a tangential curve concave to the northwest, having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 477.00 feet for an arc distance of 212.45 feet; thence North 61 degrees 31 minutes 42 seconds East, tangent to said curve a distance of 13.17 feet to the northeasterly line of said Outlot A; thence North 28 degrees 15 minutes 44 seconds West, along said northeasterly line distance of 54.00 feet; thence South 61 degrees 31 minutes 42 seconds West, a distance of 13.37 feet; thence westerly along a tangential curve concave to the north, having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 423.00 feet for an arc distance of 188.40 feet; thence South 87 degrees 02 minutes 51 seconds West, tangent to said curve, a distance of 127.62 feet; thence southwesterly along a tangential curve concave to the southeast, having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 377.00 feet for an arc distance of 167.91 feet; thence South 61 degrees 31 minutes 42 seconds West, tangent to said curve, a distance of 87.04 feet; thence southwesterly along a tangential curve, concave to the southeast having a central angle of 14 degrees 23 minutes 15 seconds, a radius of 377.00 feet for an arc distance of 94.67 feet; thence South 47 degrees 08 minutes 27 seconds West, tangent to said curve, a distance of 82.73 feet; thence North 42 degrees 51 minutes 33 seconds West, a distance of 18.54 feet; thence North 04 degrees 16 minutes 32 seconds East, a distance of 29.04 feet to the southerly right of way line of the Chicago, Milwaukee, St. Paul and Pacific Railway; thence South 61 degrees 31 minutes 42 seconds West, along said southerly right of way line, a distance of 176.32 feet to the point of beginning.

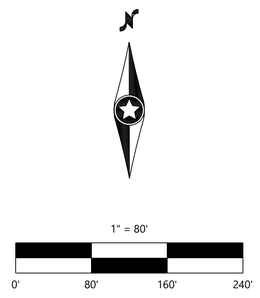
Area: 3.15 acres

PROPOSED PARCEL B DESCRIPTION:

Outlot A, CLOVER PRESERVE SECOND ADDITION, according to the recorded plat thereof, Carver County, Minnesota, EXCEPT that part described as follows:

Beginning at the northwest corner of said Outlot A; thence South 00 degrees 11 minutes 03 seconds East, assumed bearing along the west line of said Outlot A, a distance of 293.25 feet; thence North 83 degrees 57 minutes 39 seconds East, a distance of 182.59 feet; thence North 61 degrees 27 minutes 44 seconds East, a distance of 43.87 feet; thence North 89 degrees 38 minutes 44 seconds East, a distance of 31.92 feet; thence North 47 degrees 09 minutes 28 seconds East, a distance of 85.83 feet; thence North 53 degrees 36 minutes 55 seconds East, a distance of 56.48 feet; thence North 10 degrees 21 minutes 12 seconds East, a distance of 53.76 feet; thence North 22 degrees 51 minutes 51 seconds West, a distance of 46.41 feet; thence North 47 degrees 13 minutes 40 seconds West, a distance of 22.71 feet; thence North 56 degrees 59 minutes 09 seconds West, a distance of 76.82 feet; thence North 86 degrees 28 minutes 06 seconds West, a distance of 37.82 feet; thence North 42 degrees 51 minutes 33 seconds West, a distance of 27.40 feet; thence North 47 degrees 08 minutes 27 seconds East, a distance of 64.51 feet; thence northeasterly along a tangential curve concave to the southeast having a central angle of 14 degrees 23 minutes 15 seconds, a radius of 323.00 feet for an arc distance of 81.11 feet; thence North 61 degrees 31 minutes 42 seconds East, tangent to said curve a distance of 87.04 feet; thence northeasterly along a tangential curve concave to the southeast having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 323.00 feet for an arc distance of 143.86 feet; thence North 87 degrees 02 minutes 51 seconds East, tangent to said curve, a distance of 127.62 feet; thence northeasterly along a tangential curve concave to the northwest, having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 477.00 feet for an arc distance of 212.45 feet; thence North 61 degrees 31 minutes 42 seconds East, tangent to said curve a distance of 13.17 feet to the northeasterly line of said Outlot A; thence North 28 degrees 15 minutes 44 seconds West, along said northeasterly line distance of 54.00 feet; thence South 61 degrees 31 minutes 42 seconds West, a distance of 13.37 feet; thence westerly along a tangential curve concave to the north, having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 423.00 feet for an arc distance of 188.40 feet; thence South 87 degrees 02 minutes 51 seconds West, tangent to said curve, a distance of 127.62 feet; thence southwesterly along a tangential curve concave to the southeast, having a central angle of 25 degrees 31 minutes 09 seconds, a radius of 377.00 feet for an arc distance of 167.91 feet; thence South 61 degrees 31 minutes 42 seconds West, tangent to said curve, a distance of 87.04 feet; thence southwesterly along a tangential curve, concave to the southeast having a central angle of 14 degrees 23 minutes 15 seconds, a radius of 377.00 feet for an arc distance of 94.67 feet; thence South 47 degrees 08 minutes 27 seconds West, tangent to said curve, a distance of 82.73 feet; thence North 42 degrees 51 minutes 33 seconds West, a distance of 18.54 feet; thence North 04 degrees 16 minutes 32 seconds East, a distance of 29.04 feet to the southerly right of way line of the Chicago, Milwaukee, St. Paul and Pacific Railway; thence South 61 degrees 31 minutes 42 seconds West, along said southerly right of way line, a distance of 176.32 feet to the point of beginning.

Area: 24.49 acres



OAK CREEK

N:\0024429.00\DWG\SURVEY\0024429S-SKF03.DWG

DESIGNED:	-
CHECKED:	MJW
DRAWN:	SRM
HORIZONTAL SCALE:	80'
VERTICAL SCALE:	

INITIAL ISSUE: 03/09/2022
REVISIONS:

PREPARED FOR:

D.R. HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

OAK CREEK
CHASKA, MINNESOTA

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

LOT SPLIT

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 1 OF 1
DATE: 03/09/2022

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: **Southwest Christian High School – Preliminary Site & Building Plan**

Applicant: Southwest Christian High School

Location: East side of Bavaria Road, south of Highway 212

Case No.: PC No. 2022-19

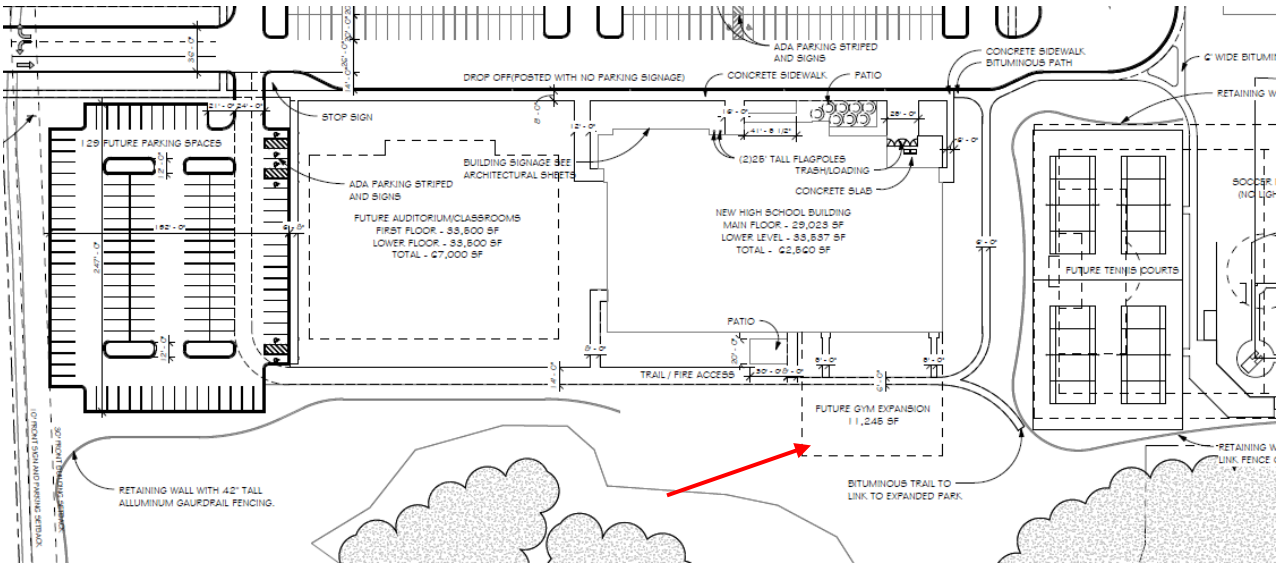
Synopsis: The applicant is requesting approval of a preliminary site & building plan to construct a 48,000 square foot fieldhouse addition at Southwest Christian High School.

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt Resolution

BACKGROUND

In May of 2011, the Preliminary Plat, Preliminary Site/Building Plans and a Conditional Use Permit were approved for Southwest Christian High School to construct a new school on the east side of Bavaria Road, south of Highway 212. The Final Site/Building Plans and Final Plat were approved in June of 2011. It was noted during those approvals that a gym addition (~11,000 square feet) was anticipated on the southern portion of the school building. See below.



In April of 2017, the Final Site & Building Plan was approved for a building addition totaling approximately 62,000 square feet that included additional classrooms, offices, and a new 643-

seat auditorium on the west side of the existing school. The plan also incorporated an 87-stall parking lot. The addition allowed the school to provide the needed space for 500 students plus expand its programming in the areas of music, theater, engineering, robotics and industrial arts.

In February of 2022, the Concept Plan for the fieldhouse addition was approved.

Changes Since Concept Plan
The following are changes on the plan since Concept Plan approval in February 2022:

Landscaping & Screening; a concern was raised from the adjacent neighbor at 303 Groves Drive regarding the landscaping and screening to occur on the southeast portion of the site near the proposed parking lot. The applicant has since bolstered this area with their landscape plan to include a staggered row of coniferous trees. A section drawing was also done to show the relation of the site, landscaping and concerned neighbor's home. The applicant has also reached out directly to this neighbor to see that the revised landscape plan was addressing the concerns that they raised. It was shared that the reaction from the neighbor was favorable of the new landscape plan.

Project Goals
The identified goals for this new addition include the following:

- Create Excellence and Community with the expansion project
- Provide improvements to the sports facilities and training offered to students
- Building community amongst the teams, student body, parent community, and the community at large

Existing Conditions
The site currently holds the existing high school (124,450 sq ft) with almost 500 students, and several tennis courts and recreational fields. There are three parking lots totaling 353 stalls. Just east of the existing school is a flat grassy area used for a soccer field, where the anticipated building addition is proposed to go.

CURRENT REQUEST
Southwest Christian High School is requesting approval of a Preliminary Site & Building Plan to build an approximately 48,000 square foot fieldhouse addition on the east side of the building. A new parking lot of 185 stalls is also proposed as a part of this project on the east side. The proposed project will not add any additional classroom space and will not increase the 500 student capacity of the school.

Adjacent properties
The site is bounded on the north by Highway 212, to the west by Bavaria Road and single family residential, the south by single family residential, and the east by single family residential.

Use
The subject property is zoned R1-A, which is a low-density single family residential zone district designation. A conditional use in the R1-A zone district is "schools, churches and similar public or semi-public uses on sites greater than 10 acres". A conditional use permit (CUP) was obtained in May of 2011 to allow for the school use. Therefore, a Conditional Use Permit was required for a

school use on this 28-acre property, which was approved at the May 11 Planning Commission meeting and May 16 City Council meeting.

One provision of this CUP was the school shall not allow the enrollment to exceed 600 students. The current school capacity holds 500 students, which is in compliance with the CUP provision.

Building Materials & Design

The Athletic Fieldhouse design will be consistent with the approved materials of the first two phases of construction. These materials consist of precast concrete walls with both smooth and raised aggregate finishes, stucco finishes on framed walls, storefront glazing/entry systems, red brick accents and exposed structural steel trim elements. The building expansion occurs to the back of the site, with the first two phases of construction anchoring the massing as seen from the primary sight line from Bavaria Road. The massing is consistent with the previously approved buildings. The new fieldhouse entrance is situated at the intersection adjacent to the existing gymnasium and has an elevated single slope roof with tall curtainwall and clerestory glazing. This fieldhouse entrance will provide the primary entrance for athletic events only. The existing entrances developed in the first two phases of construction will continue to handle the day-to-day building entrances. The overall building height matches the height of the existing gymnasium building (28'-0" on North side and 43'-0" on the South side due to site grade differential), which is less than the approved height of the Performing Arts building.

Staff Recommendation/Analysis

The original approvals of the school, including the anticipated building addition, were done before the exterior building materials were adopted. And during those original approvals, the overall design of the building went through extensive review as well. The material composition found on the building today was the result of that review. In that regard, staff is comfortable with the proposed material selection/application as long as the building is providing for an articulated and balanced design, which it appears it is doing.

It should be noted that the architectural elevations show the incorporation of additional rooftop mechanical equipment. This equipment is required to be fully screened from view. The applicant will have to work with staff to ensure the equipment is fully screened.

Setbacks

Buildings and parking shall meet the following setbacks:

BUILDING SETBACKS	
Direction	**Setback**
Bavaria Road	100 feet from centerline
Residential Property Lines	40 feet
Interior Property Lines	15 feet

PARKING SETBACKS	
Direction	**Setback**
Interior Property Lines	10 feet

Parking/Access/Circulation
185 parking spaces are proposed as a part of this building addition. The following chart summarizes the overall parking demand on the site, based on the approximated sizes of the existing and proposed uses.

Uses	Approx. Size	Code Req.	Est. Parking Req.
High School	32 Classrooms; 500 students	1ps/classroom 1ps/6 students	115 parking spaces
Auditorium	643 seats	1ps/3.5 seats	184 parking spaces
Existing Gym	300 seats	1ps/3.5 seats	86 parking spaces
Fieldhouse	300 seats	1ps/3.5 seats	86 parking spaces
		REQUIRED	**471 parking spaces**
		PROVIDED	**538 parking spaces**

According to this table the applicant is meeting the required amount of parking spaces needed for the uses. The total number of parking spaces provided are totaled from the existing (353) and proposed (185) parking counts on site. Furthermore, the applicant has noted the following in relation to their parking:

"The athletic expansion project is primarily being built to meet the needs of our existing programs and athletic events, and it includes additional parking spaces to help us manage parking for our highest-attended events. In fact, the expansion provides parking relief. Not only will we continue to be strategic in how we schedule events on campus, including not stacking events beyond our parking capacity, we will create extra parking with this additional expansion. We are quickly nearing our maximum enrollment which was already approved by the City of Chaska, and this expansion will meet the athletic needs of our current community. It will not drive enrollment beyond those agreed-to levels."

Staff is comfortable with the amount of parking proposed based on the site meeting parking requirements and the applicant's analysis of existing uses. It will be important when the school looks to add their future athletic field on the north side of the site that parking is adequately vetted out. A site and building plan process will be required to formally review this addition.

Access into the site will be gained from the existing access on Bavaria Road. No new accesses are proposed. The applicant will have to work with City staff on the operations of the existing access and timing of necessary improvements along Bavaria Road. The City Engineer has had a chance to review and comment in his memo.

Landscaping
The plan is showing landscaping to be added to the site. A mix of new trees and shrubs will be added around the site.

Landscaping will have to meet the City's ordinance in terms of quantity and size. The table below indicates the landscaping requirements for this site and how the applicant meets or does not meet them:

LANDSCAPING REQUIREMENTS & PROPOSED		
	Required	**Proposed**
Overstory Trees	146 caliper inches (51 trees)	156 caliper inches (57 trees)
Understory Trees	13	13
Shrubs	155	266

According to the table above the applicant is meeting the landscape requirements in terms of quantities. A majority of the plantings will be placed on the eastern and southern edges of the proposed parking lot, which will help with screening from the residential. The applicant has also bolstered the southeast portion of the site with staggered coniferous trees to help address the concerns of the neighbor at 303 Groves Drive.

The applicant is also incorporating planting islands in the proposed parking lot, which meet City requirements.

Lighting
Lighting will have to meet the City's lighting requirements. Pole lights will be no taller than 25 feet in height. There are some wall packs proposed on the new addition. These wall packs cannot be taller than 18 feet from grade.

Utilities & Stormwater
Water and sewer are available to serve this site. The applicant will have to meet all City and County stormwater requirements.

PLANNING COMMISSION ACTION TAKEN 04/13/2022:
Motion to recommend approval of the Preliminary Site & Building Plan for the fieldhouse building addition at Southwest Christian High School (PC#2022-19), subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-4), submitted by BGW Architects, dated January 26, 2022
    b. Main Floor Plan, submitted by BGW, dated March 3, 2022
    c. Lower Floor Plan, submitted by BGW, dated March 3, 2022
    d. Exterior Elevations, submitted by BGW, dated March 3, 2022
    e. Cover, submitted by Westwood, dated March 25, 2022
    f. Existing Conditions Plan, submitted by Westwood, dated March 25, 2022
    g. Civil Site Plan, submitted by Westwood, dated March 25, 2022
    h. Overlay Plan, submitted by Westwood, dated March 25, 2022
    i. Grading Plan, submitted by Westwood, dated March 25, 2022
    j. Erosion Control Plan, submitted by Westwood, dated March 25, 2022
    k. Utility Plan, submitted by Westwood, dated March 25, 2022
    l. Stormwater Details, submitted by Westwood, dated March 25, 2022
    m. Landscape Plan, submitted by Westwood, dated March 25, 2022
    n. Landscape Details, submitted by Westwood, dated March 25, 2022

o. Headlight Section Plan, submitted by Westwood, dated March 25, 2022
p. Photometric Site Plan, submitted by BGW Architects, dated March 24, 2022

2. Adherence to City Engineer Memo dated February 9, 2022.
3. Provision that Bavaria Road improvements are installed and in coordination with the City Engineering Department.
4. Provision of proposed signage to meet Section 15.32 of the zoning ordinance.
5. Provision of mechanical equipment to be fully screened from view.
6. Provision of proposed light poles to not exceed 25 feet in height.
7. Provision of proposed wall packs to not exceed 18 feet in height.
8. Provision of lighting to meet Section 15.28.250 of the zoning ordinance.
9. The school shall not allow the enrollment to exceed 600 students.
10. No parking associated with Southwest Christian High School or associated events may occur on White Oak Drive, Groves Drive or any other adjacent public Right-of-Way.
11. Provision of landscaping to meet required quantities per Section 15.28.070 of the zoning ordinance.
12. Provision of irrigation for the landscaped and sodded areas of the site.
13. Compliance with applicable zoning requirements, in particular Section 15.28 (Special Regulations).
14. Provision of a storm water management plan meeting City and Carver County WMO standards.
15. Provision of a Site and Building Plan review to be completed for the future athletic field on the north side of the site.

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-44 approving the Preliminary Site & Building Plan for the Fieldhouse Addition at Southwest Christian High School (PC #2022-19).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-44

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Preliminary Site & Building Plan for the fieldhouse building addition at Southwest Christian High School/Southwest Christian High School/PC #2022-19

WHEREAS, Southwest Christian High School is requesting approval of a Preliminary Site & Building Plan to build an approximately 48,000 square foot fieldhouse addition on the east side of the building; and

WHEREAS, a new parking lot of 185 stalls is also proposed as a part of this project on the east side; and

WHEREAS, the proposed project will not add any additional classroom space and will not increase the 500 student capacity of the school; and

WHEREAS, the Athletic Fieldhouse design will be consistent with the approved materials of the first two phases of construction; and

WHEREAS, these materials consist of precast concrete walls with both smooth and raised aggregate finishes, stucco finishes on framed walls, storefront glazing/entry systems, red brick accents and exposed structural steel trim elements; and

WHEREAS, it should be noted that the architectural elevations show the incorporation of additional rooftop mechanical equipment, and this equipment is required to be fully screened from view; and

WHEREAS, the total number of parking spaces provided (538) are totaled from the existing (353) and proposed (185) parking counts on site; and

WHEREAS, the applicant has noted the following in relation to their parking:

"The athletic expansion project is primarily being built to meet the needs of our existing programs and athletic events, and it includes additional parking spaces to help us manage parking for our highest-attended events. In fact, the expansion provides parking relief. Not only will we continue to be strategic in how we schedule events on campus, including not stacking events beyond our parking capacity, we will create extra parking with this additional expansion. We are quickly nearing our maximum enrollment which was already approved by the City of Chaska, and this expansion will meet the athletic needs of our current community. It will not drive enrollment beyond those agreed-to levels."

WHEREAS, it will be important when the school looks to add their future athletic field on the north side of the site that parking is adequately vetted out, and a site and building plan process will be required to formally review this addition; and

WHEREAS, the applicant will have to work with City staff on the operations of the existing vehicle access and timing of necessary improvements along Bavaria Road; and

WHEREAS, the applicant is meeting the landscape requirements in terms of quantities; and

WHEREAS, a majority of the plantings will be placed on the eastern and southern edges of the proposed parking lot, which will help with screening from the residential; and

WHEREAS, the applicant has also bolstered the southeast portion of the site with staggered coniferous trees to help address the concerns of the neighbor at 303 Groves Drive; and

WHEREAS, pole lights will be no taller than 25 feet in height; and

WHEREAS, there are some wall packs proposed on the new addition, and these wall packs cannot be taller than 18 feet from grade; and

WHEREAS, on April 13, 2022 the Planning Commission recommended approval to the City Council of the Preliminary Site & Building Plan for the fieldhouse building addition at Southwest Christian High School (PC#2022-19); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Preliminary Site & Building Plan for the fieldhouse building addition at Southwest Christian High School (PC#2022-19), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-4), submitted by BGW Architects, dated January 26, 2022
    b. Main Floor Plan, submitted by BGW, dated March 3, 2022
    c. Lower Floor Plan, submitted by BGW, dated March 3, 2022
    d. Exterior Elevations, submitted by BGW, dated March 3, 2022
    e. Cover, submitted by Westwood, dated March 25, 2022
    f. Existing Conditions Plan, submitted by Westwood, dated March 25, 2022
    g. Civil Site Plan, submitted by Westwood, dated March 25, 2022
    h. Overlay Plan, submitted by Westwood, dated March 25, 2022
    i. Grading Plan, submitted by Westwood, dated March 25, 2022
    j. Erosion Control Plan, submitted by Westwood, dated March 25, 2022
    k. Utility Plan, submitted by Westwood, dated March 25, 2022
    l. Stormwater Details, submitted by Westwood, dated March 25, 2022
    m. Landscape Plan, submitted by Westwood, dated March 25, 2022
    n. Landscape Details, submitted by Westwood, dated March 25, 2022
    o. Headlight Section Plan, submitted by Westwood, dated March 25, 2022
    p. Photometric Site Plan, submitted by BGW Architects, dated March 24, 2022
2. Adherence to City Engineer Memo dated February 9, 2022.
3. Provision that Bavaria Road improvements are installed and in coordination with the City Engineering Department.
4. Provision of proposed signage to meet Section 15.32 of the zoning ordinance.
5. Provision of mechanical equipment to be fully screened from view.
6. Provision of proposed light poles to not exceed 25 feet in height.
7. Provision of proposed wall packs to not exceed 18 feet in height.
8. Provision of lighting to meet Section 15.28.250 of the zoning ordinance.
9. The school shall not allow the enrollment to exceed 600 students.
10. No parking associated with Southwest Christian High School or associated events may occur on White Oak Drive, Groves Drive or any other adjacent public Right-of-Way.
11. Provision of landscaping to meet required quantities per Section 15.28.070 of the zoning ordinance.
12. Provision of irrigation for the landscaped and sodded areas of the site.

13. Compliance with applicable zoning requirements, in particular Section 15.28 (Special Regulations).
14. Provision of a storm water management plan meeting City and Carver County WMO standards.
15. Provision of a Site and Building Plan review to be completed for the future athletic field on the north side of the site.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

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PRELIMINARY SITE IMPROVEMENT PLANS

FOR

SOUTHWEST CHRISTIAN HIGH SCHOOL - FIELDHOUSE ADDITION

CHASKA, MN



Vicinity Map
(NOT TO SCALE)

PREPARED FOR:

SOUTHWEST CHRISTIAN HIGH SCHOOL

1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318
CONTACT: MARK ANDERSON
PHONE: (952) 556-0040
EMAIL: M_ANDERSON@SWCHS.ORG

PREPARED BY:

Westwood

Phone (952) 937-5150
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Toll Free (888) 937-5150

12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343
westwoodps.com

Westwood Professional Services, Inc.

PROJECT NUMBER: 0033661.00
CONTACT: TYLER D. MAXSON, P.E.

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER
C1.0	EXISTING CONDITIONS PLAN
C3.0	CIVIL SITE PLAN
C3.1	OVERLAY PLAN
C4.0	GRADING PLAN
C4.1	EROSION CONTROL PLAN
C5.0	UTILITY PLAN
C5.1	STORMWATER DETAILS
L1.0	LANDSCAPE PLAN
L1.1	LANDSCAPE DETAILS
L1.2	HEADLIGHT SECTION PLAN

NO.	DATE	REVISION	SHEETS
	03/25/22	CITY COMMENTS	
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PRELIMINARY SITE IMPROVEMENT PLANS
FOR
SOUTHWEST CHRISTIAN HIGH SCHOOL - FIELDHOUSE ADDITION
CHASKA, MN
INITIAL SUBMITTAL DATE: 03/07/22 SHEET: C0.0 OF 11

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE

PROJECT NUMBER: 0033661.00

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HIGHWAY NO 212

WESTWOOD LANE

BAVARIA ROAD

WHITE OAK DRIVE

LOT 1

BLOCK 1

OUTLOT A

EXISTING BUILDING

FFE=908.90
LFE=893.90

DRAINAGE & UTILITY EASEMENT PER THE PLAT OF SOUTHWEST CHRISTIAN HIGH SCHOOL DEVELOPMENT

WATERMAIN AS SCALED PER PLANS

SOUTHWEST CHRISTIAN HIGH SCHOOL

NOT FOR CONSTRUCTION

0' 50' 100' 150'

1" = 50'

DESIGNED: DMP
CHECKED: DMP
DRAWN: TDM
HORIZONTAL SCALE: 50'
VERTICAL SCALE:

INITIAL ISSUE: 03/07/22
REVISIONS:
1 03/25/22 CITY COMMENTS
2 . . .
3 . . .
4 . . .
5 . . .

PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

TYLER D. MAXSON, P.E.

DATE 03/25/22 LICENSE NO. .

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
CHASKA, MN

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Minnetonka, MN 55343
westwoodps.com
Westwood Professional Services, Inc.

EXISTING CONDITIONS PLAN

SHEET NUMBER:
C1.0

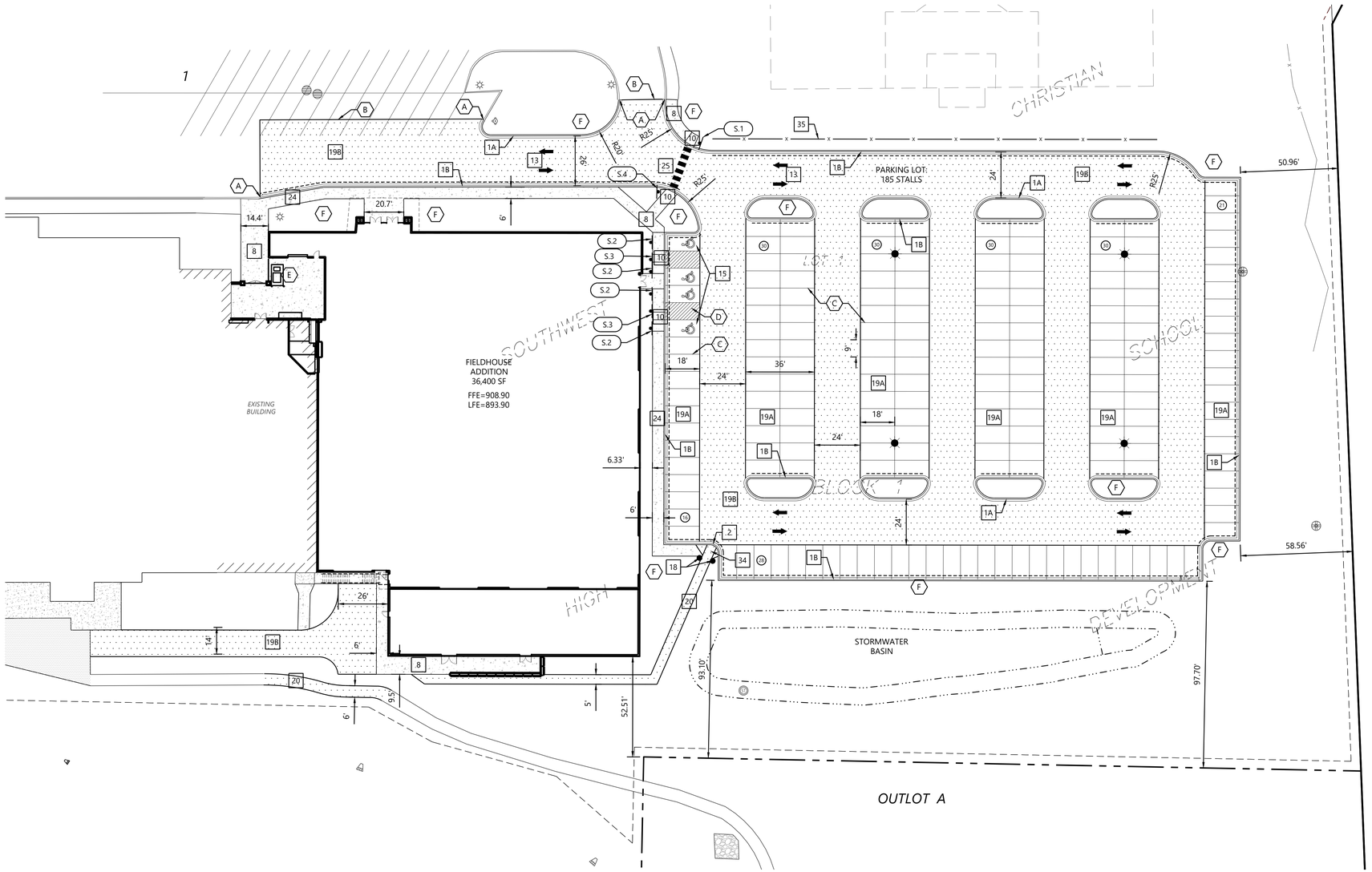
DATE: 03/25/22

PROJECT NUMBER: 0033661.00

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE

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SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL
		FENCE
		CONCRETE PAVEMENT
		CONCRETE SIDEWALK
		STANDARD DUTY BITUMINOUS PAVEMENT
		HEAVY DUTY BITUMINOUS PAVEMENT
		NUMBER OF PARKING STALLS
		TRANSFORMER
		SITE LIGHTING
		TRAFFIC SIGN
		POWER POLE
		BOLLARD / POST

1 SITE DETAILS (SI-0XX)

1A	B612 CURB AND GUTTER
1B	B612 TIPOUT CURB AND GUTTER
2	MOUNTABLE CURB AND GUTTER
5	INTEGRAL CURB AND WALK
8	PRIVATE CONCRETE SIDEWALK
10	PRIVATE PARALLEL PEDESTRIAN CURB RAMP
13	TRAFFIC ARROW
14	SIGN INSTALLATION
15	HANDICAP ACCESSIBLE SIGNAGE AND STRIPING
18	BOLLARD W/ REMOVABLE CHAIN
19A	STANDARD DUTY PAVEMENT SECTION
19B	HEAVY DUTY PAVEMENT SECTION
20	BITUMINOUS TRAIL
24	CONCRETE CURB AT SIDEWALK
25	CROSSWALK STIPING
34	PEDESTRIAN CURB RAMP FOR BITUMINOUS TRAILS
35	ORNAMENTAL FENCE (SEE ARCH.)

A SITE KEYNOTES

A	MATCH EX. CURB AND GUTTER
B	MATCH EX. BITUMINOUS PAVEMENT WITH SAWCUT
C	4" SOLID WHITE PAVEMENT MARKING (TYP.)
D	4" WHITE DIAGONAL PARKING STRIPE (TYP.)
E	TRANSFORMER PAD
F	LANDSCAPE AREA
G	LIGHT POLE

S.10 SIGN LEGEND

REFERENCE		SIZE	MnDOT DESIGNATION
S.1	STOP SIGN	30" X 30"	R1-1
S.2	HANDICAP ACCESSIBLE	12" X 18"	R7-8M
S.3	NO PARKING	12" X 12"	R8-38
S.4	PEDESTRIAN PARKING	30" X 30"	W11-2

GENERAL SITE NOTES

1. BACKGROUND INFORMATION FOR THIS PROJECT PROVIDED BY WESTWOOD PROFESSIONAL SERVICES, MINNETONKA, MN, 8/24/21.
2. LOCATIONS AND ELEVATIONS OF EXISTING TOPOGRAPHY AND UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND, THE ENGINEER SHOULD BE NOTIFIED IMMEDIATELY.
3. REFER TO BOUNDARY SURVEY FOR LOT BEARINGS, DIMENSIONS AND AREAS.
4. ALL DIMENSIONS ARE TO FACE OF CURB OR EXTERIOR FACE OF BUILDING UNLESS OTHERWISE NOTED.
5. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND LOCATIONS OF EXITS, RAMPS, AND TRUCK DOCKS.
6. ALL CURB RADII ARE SHALL BE 3.0 FEET (TO FACE OF CURB) UNLESS OTHERWISE NOTED.
7. ALL CURB AND GUTTER SHALL BE ***B612*** UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGGERS AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE CITY AND ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MNDOT STANDARDS.
9. BITUMINOUS PAVEMENT AND CONCRETE SECTIONS TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
10. CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES.
11. SITE LIGHTING SHOWN ON PLAN IS FOR REFERENCE ONLY. REFER TO LIGHTING PLAN PREPARED BY OTHERS FOR SITE LIGHTING DETAILS AND PHOTOMETRICS.

SITE DEVELOPMENT SUMMARY

• EXISTING ZONING:	R1A
• PROPOSED ZONING:	R1A
• PARCEL DESCRIPTION:	LOT 1, BLOCK 1 SOUTHWEST CHRISTIAN HIGH SCHOOL DEVELOPMENT
• DISTURBED AREA:	3.45 AC
• PERVIOUS SURFACE:	32,354 SF (21.6%)
• IMPERVIOUS SURFACE(RATIO):	117,708 SF (78.4%)
• BUILDING FOOTPRINT:	36,400 SF
• PARKING SPACE/DRIVE AISLE:	9' WIDE X 18' LONG, 24' AISLE
• EXISTING PARKING:	440 STALLS
• PROPOSED ADDITIONAL PARKING:	185 STALLS

1" = 30'

0' 30' 60' 90'

NOT FOR CONSTRUCTION

DESIGNED: DMP
CHECKED: DMP
DRAWN: TDM
HORIZONTAL SCALE: 30'
VERTICAL SCALE: -

INITIAL ISSUE: 03/07/22
REVISIONS:
1 03/25/22 CITY COMMENTS

PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

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TYLER D. MAXSON, P.E.
DATE: 03/25/22 LICENSE NO. -

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
CHASKA, MN

Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
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CIVIL SITE PLAN

SHEET NUMBER: C3.0

DATE: 03/25/22

PROJECT NUMBER: 0033661.00

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1" = 50'
0' 50' 100' 150'

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OVERLAY PLAN

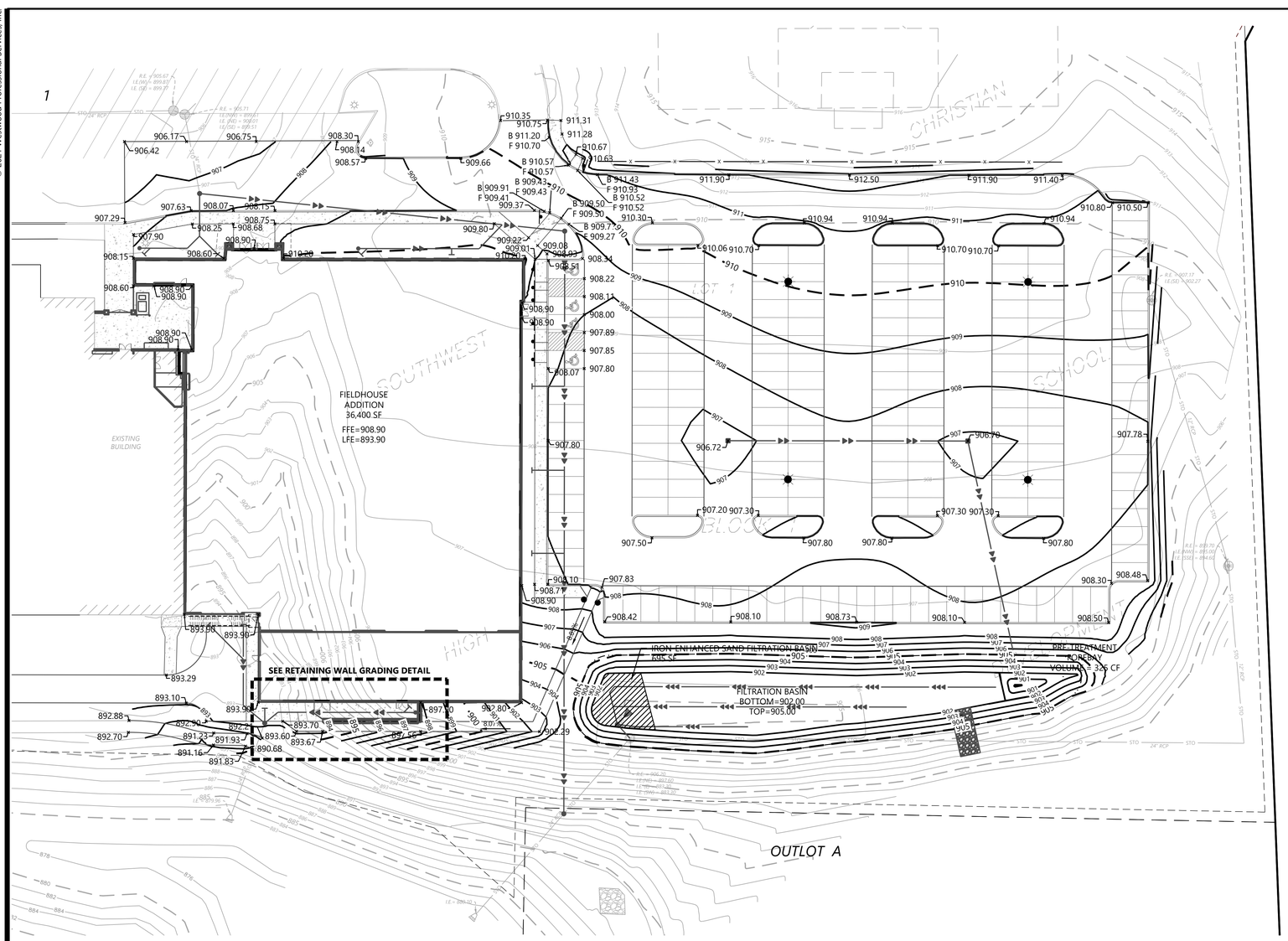
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DATE: 03/25/22

PROJECT NUMBER: 0033661.00

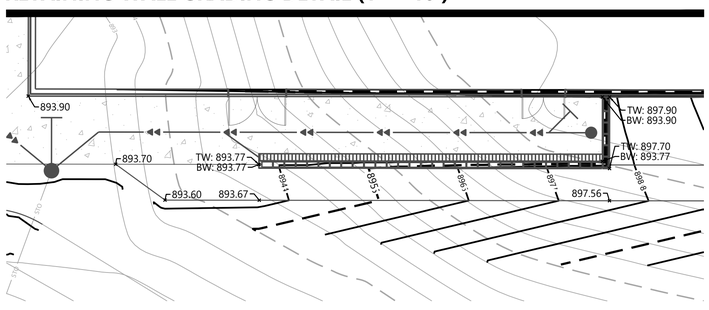
SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE

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RETAINING WALL GRADING DETAIL (1" = 10')



GRADING LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
980	980	INDEX CONTOUR
982	982	INTERVAL CONTOUR
		CURB AND GUTTER
		POND NORMAL WATER LEVEL
STO	STO	STORM SEWER
		FLARED END SECTION (WITH RIPRAP)
WAT	WAT	WATER MAIN
SAN	SAN	SANITARY SEWER
		RETAINING WALL
		DRAIN TILE
		RIDGE LINE
	GL	GRADING LIMITS
900.00	× 900.00	SPOT ELEVATION
	0.00%	FLOW DIRECTION
	TW=XXX.XX BW=XXX.XX	TOP AND BOTTOM OF RETAINING WALL
	E.O.F.	EMERGENCY OVERFLOW
SB-19	SB-19	SOIL BORING LOCATION

GRADING NOTES

1. LOCATIONS AND ELEVATIONS OF EXISTING TOPOGRAPHY AND UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
2. CONTRACTORS SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULE, SLOPED PAVEMENT, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY ENTRANCE LOCATIONS, AND EXACT LOCATIONS AND NUMBER OF DOWNSPOUTS.
3. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL/SURFACE RESTORATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
4. ALL DISTURBED UNPAVED AREAS ARE TO RECEIVE SIX INCHES OF TOPSOIL AND SOD OR SEED. THESE AREAS SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. SEE LANDSCAPE PLAN FOR PLANTING AND TURF ESTABLISHMENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MNDOT STANDARDS.
6. ALL SLOPES SHALL BE GRADED TO 3:1 OR FLATTER, UNLESS OTHERWISE INDICATED ON THIS SHEET.
7. CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
8. **SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS & GUTTER FLOW LINE UNLESS OTHERWISE NOTED. PROPOSED CONTOURS ARE TO FINISHED SURFACE GRADE.**
9. SEE SOILS REPORT FOR PAVEMENT THICKNESSES AND HOLD DOWNS.
10. CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL THAT EXISTS AFTER THE SITE GRADING AND UTILITY CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS SOIL MATERIAL IN A MANNER ACCEPTABLE TO THE OWNER AND THE REGULATING AGENCIES.
11. CONTRACTOR SHALL PROVIDE A STRUCTURAL RETAINING WALL DESIGN CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER.
12. ALL CONSTRUCTION SHALL CONFORM TO LOCAL, STATE AND FEDERAL RULES INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
13. PRIOR TO PLACEMENT OF ANY STRUCTURE OR PAVEMENT, A PROOF ROLL, AT MINIMUM, WILL BE REQUIRED ON THE SUBGRADE. PROOF ROLLING SHALL BE ACCOMPLISHED BY MAKING MINIMUM OF 2 COMPLETE PASSES WITH FULLY-LOADED TANDEM-AXLE DUMP TRUCK, OR APPROVED EQUAL, IN EACH OF 2 PERPENDICULAR DIRECTIONS WHILE UNDER SUPERVISION AND DIRECTION OF THE INDEPENDENT TESTING LABORATORY. AREAS OF FAILURE SHALL BE EXCAVATED AND RE-COMPACTED AS SPECIFIED HEREIN.
14. EMBANKMENT MATERIAL PLACED BENEATH BUILDINGS AND STREET OR PARKING AREAS SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD AS OUTLINED IN MNDOT 2105.3F1 AND THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.
15. EMBANKMENT MATERIAL NOT PLACED IN THE BUILDING PAD, STREETS OR PARKING AREA, SHALL BE COMPACTED IN ACCORDANCE WITH REQUIREMENTS OF THE ORDINARY COMPACTION METHOD AS OUTLINED IN MNDOT 2105.3F2.
16. ALL SOILS AND MATERIALS TESTING SHALL BE COMPLETED BY AN INDEPENDENT GEOTECHNICAL ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOILS TESTS AND INSPECTIONS WITH THE GEOTECHNICAL ENGINEER.

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1" = 30'
0' 30' 60' 90'

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DESIGNED: DMP
CHECKED: DMP
DRAWN: TDM
HORIZONTAL SCALE: 30'
VERTICAL SCALE:

INITIAL ISSUE: 03/07/22
REVISIONS:
1 03/25/22 CITY COMMENTS

PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

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TYLER D. MAXSON, P.E.
DATE: 03/25/22 LICENSE NO. ____

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
CHASKA, MN

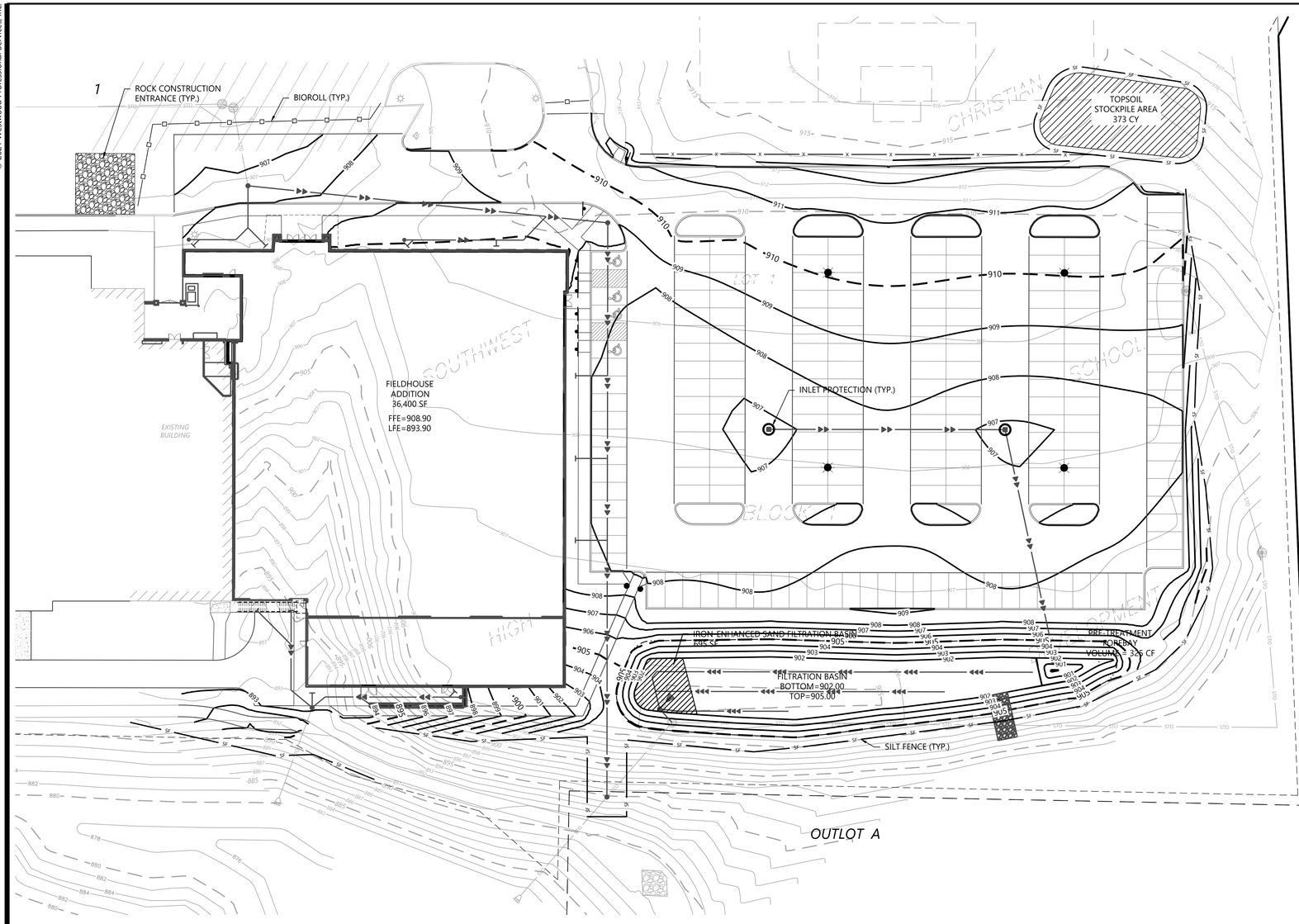
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GRADING PLAN

SHEET NUMBER:
C4.0
DATE: 03/25/22

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
PROJECT NUMBER: 0033661.00

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GENERAL EROSION CONTROL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL SILT FENCE AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. EXISTING SILT FENCE ON-SITE SHALL BE MAINTAINED AND OR REMOVED AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONTRACT. IT IS OF EXTREME IMPORTANCE TO BE AWARE OF CURRENT FIELD CONDITIONS WITH RESPECT TO EROSION CONTROL. TEMPORARY PONDING, DIKES, HAYBALES, ETC., REQUIRED BY THE CITY SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
3. EROSION AND SILTATION CONTROL (ESC): THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR CONTROLLING ALL SILTATION AND EROSION OF THE PROJECT AREA. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO CONTROL THE EROSION AND SILTATION INCLUDING BUT NOT LIMITED TO: CATCH BASIN INSERTS, CONSTRUCTION ENTRANCES, EROSION CONTROL BLANKET, AND SILT FENCE. ESC SHALL COMMENCE WITH GRADING AND CONTINUE THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE OWNER. THE CONTRACTOR'S RESPONSIBILITY INCLUDES ALL IMPLEMENTATION AS REQUIRED TO PREVENT EROSION AND THE DEPOSITING OF SILT. THE OWNER MAY DIRECT THE CONTRACTOR'S METHODS AS DEEMED FIT TO PROTECT PROPERTY AND IMPROVEMENTS. ANY DEPOSITION OF SILT OR MUD ON NEW OR EXISTING PAVEMENT OR IN EXISTING STORM SEWERS OR SWALES SHALL BE REMOVED AFTER EACH RAIN EVENT. AFFECTED AREAS SHALL BE CLEANED TO THE SATISFACTION OF THE OWNER, ALL AT THE EXPENSE OF THE CONTRACTOR. ALL TEMPORARY EROSION CONTROL SHALL BE REMOVED BY THE CONTRACTOR AFTER THE TURF IS ESTABLISHED.
4. ALL STREETS DISTURBED DURING WORKING HOURS MUST BE CLEANED AT THE END OF EACH WORKING DAY. A CONSTRUCTION ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO DETAILS TO REDUCE TRACKING OF DIRT ONTO PUBLIC STREETS.
5. PROPOSED PONDS SHALL BE EXCAVATED FIRST AND USED AS TEMPORARY PONDING DURING CONSTRUCTION.
6. WHEN INSTALLING END-OF-LINE FLARED END SECTIONS, BRING THE SILT FENCE UP & OVER THE FLARED END SECTIONS & COVER DISTURBED AREAS WITH RIP RAP. THE UPSTREAM FLARED END SECTIONS SHALL HAVE WOOD FIBER BLANKET INSTALLED ON THE DISTURBED SOILS.
7. ALL UNPAVED AREAS ALTERED DUE TO CONSTRUCTION ACTIVITIES MUST BE RESTORED WITH SEED AND MULCH, SOD, EROSION CONTROL BLANKET OR BE HARD SURFACE WITHIN 2 WEEKS OF COMPLETION OF CONSTRUCTION.
8. THE SITE MUST BE STABILIZED PER THE REQUIREMENTS OF THE MPCA, NPDES, MNDOT, AND CITY.
   A. TEMPORARY (GREATER THAN 1-YEAR) SEED SHALL BE MNDOT SEED MIX 22-111 AT 30.5-POUNDS PER ACRE.
   B. TEMPORARY (LESS THAN 1-YEAR) SEED SHALL BE MNDOT SEED MIX 21-112 (FALL) OR 21-111 (SPRING/SUMMER) AT 100-POUNDS PER ACRE
   C. INFILTRATION/FILTRATION BASIN SHALL BE MNDOT SEED MIX 34-262 AT 14.5-POUNDS PER ACRE.
   D. POND SLOPES SHALL BE MNDOT SEED MIX 33-261 AT 35-POUNDS PER ACRE.
   E. GENERAL SEEDING SHALL BE MNDOT SEED MIX 25-151 AT 70-POUNDS PER ACRE.
   F. MULCH SHALL BE MNDOT TYPE 1 APPLIED AT 2-TONS PER ACRE.
9. FOR AREAS WITH SLOPE OF 3:1 OR GREATER, RESTORATION WITH SOD OR EROSION CONTROL BLANKET IS REQUIRED.
10. ALL TEMPORARY STOCKPILES MUST HAVE SILT FENCE INSTALLED AROUND THEM TO TRAP SEDIMENT.
11. ALL PERMANENT PONDS USED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION SHALL BE DREDGED AFTER THE SITE HAS BEEN STABILIZED TO RESTORE THE POND TO THE PROPOSED BOTTOM ELEVATION.
12. ALL CONSTRUCTION SHALL CONFORM TO LOCAL AND STATE RULES INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
13. THE SITE MUST BE KEPT IN A WELL-DRAINED CONDITION AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING OR OTHER MEANS REQUIRED TO INSURE PROPER DRAINAGE DURING CONSTRUCTION. LOW POINTS IN ROADWAYS OR BUILDING PADS MUST BE PROVIDED WITH A POSITIVE OUTFLOW.
14. PUBLIC STREETS USED FOR HAULING SHALL BE KEPT FREE OF SOIL AND DEBRIS. STREET SWEEPING SHALL BE CONCURRENT WITH SITE WORK.

CCWMO TOPSOIL STANDARD

Requirement	Range	Test Method
Material Passing the ¾ in [19 mm]	100 %	ASTM D 422
Material passing No 4 in [4.75 mm]	≥ 85%	-
Clay	5% – 30%	ASTM D 422
Silt	5% - 35%	ASTM D 422
Sand	38% - 75%	ASTM D 422
Organic matter	3% – 15%	ASTM D 2974
pH	6.1 – 7.5	ASTM G 51
Compaction	- 1,400 kilopascals (kPa) / 200 pounds per square inch (psi) in the upper 12 inches of soil, or - bulk density of less than 1.4 grams per cubic centimeter (g/cm3) in the upper 12 inches of soil	Field test

FILTRATION/INFILTRATION BASIN NOTES

1. BASIN EXCAVATION AND PIPE INSTALLATION MAY TAKE PLACE BEFORE CURB INSTALLATION. ALL OTHER BASIN CONSTRUCTION MUST WAIT UNTIL FINAL SITE LANDSCAPING. REMOVE SEDIMENT FROM EXCAVATED BASIN PRIOR TO PLACEMENT OF FILTER MEDIA. PLACE SAND BAGS OR SIMILAR ITEM IN CURB CUTS TO PRE-FILTER STORM WATER UNTIL PLANTS ARE ESTABLISHED IN BASINS. MAINTAIN INLET PROTECTION ON DOWN STREAM INLETS UNTIL BASINS ARE ON-LINE.
2. BASIN EXCAVATION SHALL BE WITH TOOTHED-BUCKETS TO SCARIFY THE BOTTOM.
3. PLACE SILT FENCE AROUND BASINS AS SHOWN IMMEDIATELY AFTER BASIN CONSTRUCTION.
4. BASINS MUST BE TESTED FOR INFILTRATION RATE AFTER TOTAL SITE STABILIZATION. A DUAL RING INFILTROMETER SHALL BE USED FOR TESTING. MINIMUM INFILTRATION RATE IS 1-INCH PER HOUR. IF BASIN DOES NOT MEET INFILTRATION RATE, CONTRACTOR MUST TAKE CORRECTIVE ACTION UNTIL MINIMUM INFILTRATION RATE IS MET. CORRECTIVE ACTION MAY INCLUDE REMOVING PLUG IN DRAIN TILE. ALL TESTING AND CORRECTIVE ACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE INCIDENTAL TO THE CONTRACT, WITH NO DIRECT COMPENSATION MADE.

EROSION CONTROL LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
980	980	INDEX CONTOUR
982	982	INTERVAL CONTOUR
		CURB AND GUTTER
		POND NORMAL WATER LEVEL
SF	SF	SILT FENCE
		BIOROLL
RSC	RSC	REDUNDANT SILT CONTROL
STO		STORM SEWER
		FLARED END SECTION (WITH RIPRAP)
WAT		WATER MAIN
SAN		SANITARY SEWER
		RETAINING WALL
		DRAIN TILE
GL	GL	GRADING LIMITS
		ROCK CONSTRUCTION ENTRANCE
		EROSION CONTROL BLANKET
		TURF REINFORCEMENT MAT
E.O.F.	E.O.F.	EMERGENCY OVERFLOW
SB-19	SB-19	SOIL BORING LOCATION
		INLET PROTECTION

CCWMO TOPSOIL NOTES

1. EXISTING ON-SITE TOPSOIL MAY BE USED FOR RE-SPREAD IF APPROVED BY CCWMO. CONTRACTOR TO COORDINATE WITH BRAUN INTERTEC AND CCWMO.
2. FOR TOPSOIL STRIPPING AND STOCKPILING:
   - EXISTING TOPSOIL AVAILABLE ON-SITE: 2,407 CY
   - TOPSOIL NEEDED TO RESTORE GREEN SPACES: 373 CY
   - AVERAGE DEPTH OF TOPSOIL AVAILABLE ON-SITE: 0.5 FEET
   - DOZERS/SCRAPERS TO BE USED FOR TOPSOIL STRIPPING.
   - SILT FENCE TO BE USED FOR TOPSOIL STOCKPILE.
   - CONTRACTOR TO TEMPORARILY SEED TOPSOIL STOCKPILE IF STOCKPILE WILL REMAIN IN PLACE FOR > 6 MONTHS.
3. STOCKPILE SAMPLING PROCEDURE:
   - ONE SAMPLE SHALL BE COLLECTED PER 2,500 CUBIC METERS OF STOCKPILE, MINIMUM ONE SAMPLE.
   - THE CONTRACTOR SHALL FORM A FACE FOR THE FULL HEIGHT OF THE STOCKPILE AT FOUR LOCATIONS.
   - A LOADER BUCKET OR SIMILAR EQUIPMENT SHALL THEN BE FILLED BY CHANNELING THE FULL HEIGHT OF THE STOCKPILE FACE, FROM THE BOTTOM TO THE TOP, IN ONE OPERATION.
   - THE BUCKET SHALL THEN BE LOWERED AND EMPTIED BY ROTATION TO FORM A SMALL PILE AT EACH SAMPLING LOCATION.
   - THE SAMPLER SHALL PLACE A SHOVEL FULL OF SOIL FROM EACH PILE INTO A LARGE CONTAINER. THE SOIL SHALL BE THOROUGHLY MIXED AND A SUFFICIENT AMOUNT OF MIXED TOPSOIL SHALL BE TAKEN TO FILL A STANDARD TOPSOIL SAMPLING CONTAINER.
   - SAMPLES SHALL BE SUBMITTED FOR ANALYSIS TO LAB QUALIFIED TO USE THE FOLLOWING TEST METHODS: ASTM D422, ASTM D2974, AND ASTM G51. SAMPLES SHALL BE ANALYZED FOR CLAY, SILT, SAND, ORGANIC MATTER, AND PH.
   - ADDITIONAL TOPSOIL SHALL NOT BE ADDED TO THE STOCKPILE AFTER SAMPLING.
   - SAMPLE RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR REVIEW. TEST RESULTS ARE VALID FOR 6 MONTHS.
4. SUBSOIL PREPARATION PROCEDURE:
   - CONTRACTOR TO PERFORM SUBSOIL PREPARATION BEFORE PLACING TOPSOIL.
   - SUBSOIL PREPARATION TO BE PERFORMED IN ONE DIRECTION ON THE CONTOURS PERPENDICULAR TO THE FLOW OF WATER AND SLOPES FLATTER THAN 1:2
5. ALL DISTURBED UN-PAVED AREAS ARE TO RECEIVE SIX INCHES OF TOPSOIL AND SOD OR SEED. THESE AREAS SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. SEE LANDSCAPE PLAN FOR PLANTING AND TURF ESTABLISHMENT.
6. TOPSOIL LOCATIONS ARE PLANTING AND SODDED AREAS AS SHOWN ON THE LANDSCAPE PLAN.
7. TOPSOIL RE-APPLIED MUST MEET THE MATERIALS SPECIFICATIONS OF THE CARVER COUNTY WATER RESOURCE MANAGEMENT ORDINANCE AND BMP GUIDELINES. SEE SECTION 1. ORDINANCE GUIDANCE, F. TOPSOIL MANAGEMENT PLAN GUIDANCE. THE TOPSOIL SPECIFICATIONS INCLUDE SOIL TYPE, ORGANIC MATTER CONTENT, PH, AND COMPACTION. COUNTY APPROVAL OF SOIL SAMPLES AND TESTING ARE REQUIRED PRIOR TO SPREADING OF TOPSOIL. TOPSOIL MAY NEED TO BE AMENDED OR IMPORTED TO MEET THIS STANDARD.

1" = 30'
0' 30' 60' 90'

NOT FOR CONSTRUCTION

DESIGNED: DMP
CHECKED: DMP
DRAWN: TDM
HORIZONTAL SCALE: 30'
VERTICAL SCALE:

INITIAL ISSUE: 03/07/22
REVISIONS:
1 03/25/22 CITY COMMENTS
2 . .
3 . .
4 . .
5 . .

PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

TYLER D. MAXSON, P.E.

DATE 03/25/22 LICENSE NO. -

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SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
CHASKA, MN

EROSION CONTROL PLAN

SHEET NUMBER:
C4.1

DATE: 03/25/22

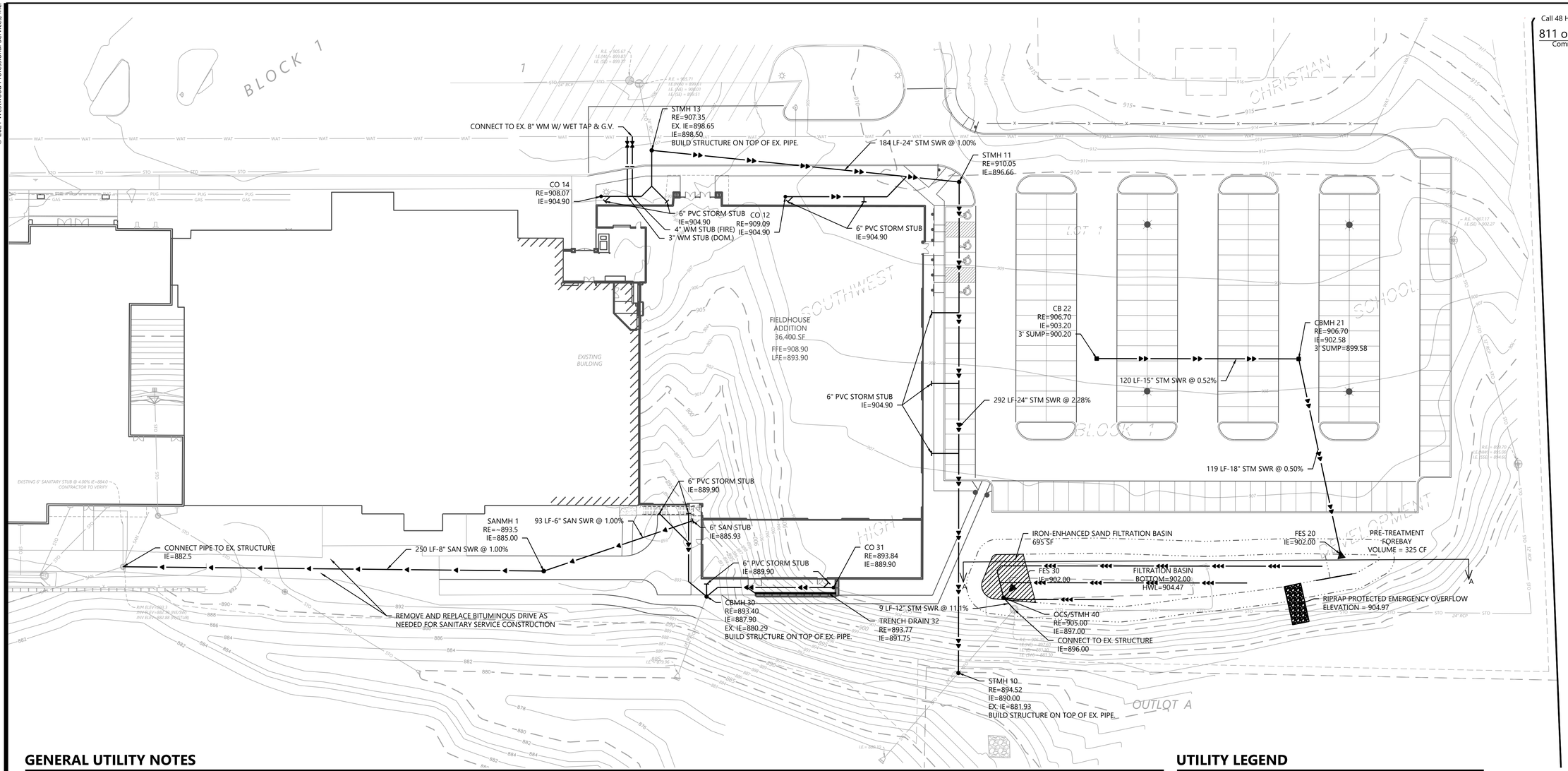
PROJECT NUMBER: 0033661.00

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE

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GENERAL UTILITY NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL SANITARY SEWER, STORM SEWER AND WATER MAIN MATERIAL AND INSTALLATIONS SHALL BE PER CITY REQUIREMENTS, MINNESOTA PLUMBING CODE, AND IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY FEDERAL, STATE AND LOCAL PERMITS FOR THE PROPOSED WORK OR VERIFY WITH THE OWNER OR ENGINEER THAT PERMITS HAVE BEEN OBTAINED. PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE ARRANGED WITH THE OWNER.
4. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF DOORWAYS, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY CONNECTION LOCATIONS.
5. ALL PRIVATE UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE SERVICE LINE CONSTRUCTION WITH THE UTILITY COMPANIES.
6. CONTRACTOR SHALL OBTAIN ALL NECESSARY CITY PERMITS FOR UTILITY CONNECTIONS, AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. WATER MAIN LENGTHS AS SHOWN ARE APPROXIMATE HORIZONTAL LENGTHS. ALLOW FOR ADDITIONAL PIPE WHEN INSTALLING ON SLOPES OR WHEN DEFLECTIONS ARE REQUIRED. THE JOINT DEFLECTIONS SHALL NOT EXCEED THE MAXIMUM RECOMMENDED BY THE PIPE MANUFACTURER OR BY LOCAL GOVERNING SPECIFICATIONS. FITTINGS REQUIRED TO CONSTRUCT WATER MAIN SHALL BE INCLUDED IN WATER MAIN CONSTRUCTION.
8. PROVIDE WATER MAIN THRUST RESTRAINTS PER CITY STANDARD REQUIREMENTS.
9. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED AT ALL WATER LINE CROSSINGS WITH SANITARY SEWER OR STORM SEWER. THE WATER LINE SHALL NOT HAVE JOINTS OR CONNECTION WITHIN 10-FEET OF THE CROSSING. INSULATE CROSSINGS WITH STORM SEWER.
10. UTILITY SERVICES TYPICALLY TERMINATE 5' OUTSIDE BUILDING WALL UNLESS OTHERWISE SHOWN OR NOTED.
11. DUCTILE IRON WATER LINES SHALL BE CLASS 52, PER AWWA C115 OR C151. COPPER WATER LINES SHALL BE TYPE K PER ASTM B88. PVC WATER LINES SHALL BE PER AWWA C900 AND INSTALLED PER AWWA C605 IF ALLOWED BY CITY.
12. ALL WATER LINES SHALL HAVE <<7.5' OR 8'>> MINIMUM COVER. INSULATE WATER MAIN IF LESS THAN 8' OF COVER. INSULATION SHALL BE DOW STYROFOAM HI BRAND 35 OR EQUIVALENT, WITH 4 INCHES OF THICKNESS.
13. SANITARY SEWER PIPE OUTSIDE THE BUILDING ENVELOPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 OR 26. SDR 26 IS REQUIRED FOR DEPTHS GREATER THAN 15 FEET. SANITARY SEWER PIPE WITHIN 5 FEET OF THE BUILDING AND UNDER FOOTINGS SHALL BE SCHEDULE 40 PER ASTM D2665. ALL PLASTIC SANITARY SEWER SHALL BE INSTALLED PER D2321. SOLVENT WELD JOINTS MUST INCLUDE USE OF A PRIMER WHICH IS OF A CONTRASTING COLOR TO THE PIPE AND CEMENT. ALL SANITARY SEWER SHALL BE TESTED ACCORDING TO MINNESOTA PLUMBING CODE, PART 712.0.
14. STORM SEWER PIPE:
    A. RCP AND HDPE PIPE MAY BE INSTALLED WITH APPROVAL OF LOCAL GOVERNING AGENCY.
    B. REINFORCED CONCRETE PIPE SHALL BE CLASS 5 FOR PIPE DIAMETERS 18" AND SMALLER, CLASS 3 FOR PIPE DIAMETERS 21" AND LARGER UNLESS OTHERWISE NOTED, PER ASTM C76 WITH R-4 GASKETS.
    C. HDPE STORM PIPE 4- TO 10-INCHES IN DIAMETER SHALL MEET REQUIREMENTS OF AASHTO M252. HDPE STORM PIPE 12- TO 60-INCHES IN DIAMETER SHALL MEET REQUIREMENTS OF ASTM F2306. FITTINGS SHALL BE PER ASTM D3212 AND INSTALLED PER ASTM D2321.
    D. PVC STORM SEWER PIPE AND FITTINGS SHALL BE SCHEDULE 40 PIPE PER ASTM D2665 AND INSTALLED PER ASTM D2321.
    E. CORRUGATED METAL PIPE (CMP) FOR SIZES 18- TO 120-INCH AND MUST MEET ASTM A760 OR ASTM A796 AND BE INSTALLED PER ASTM A798. CMP MAY NOT BE INSTALLED WITHIN 10-FEET OF A WATERMAIN, WATER SERVICE, OR A BUILDING.
    F. ALL STORM SEWER JOINTS AND STRUCTURE CONNECTIONS SHALL BE GASTIGHT OR WATERTIGHT AS REQUIRED BY MINNESOTA PLUMBING CODE, PART 707.3. STORM SEWER LOCATED WITHIN 10-FEET OF A BUILDING AND/OR WATER LINE SHALL BE TESTED PER MINNESOTA PLUMBING CODE, PART 712.
15. ALL NONCONDUCTIVE PIPE SHALL BE INSTALLED WITH A LOCATE (TRACER) WIRE PER MINNESOTA RULES, PART 7560.0150.
16. POST INDICATOR VALVES SHALL BE CLOW F-5750 (OR EQUIVALENT) MEETING AWWA STANDARD C509 AND CITY STANDARDS. VALVE TO BE MECHANICAL JOINT RESILIENT WEDGE GATE VALVE. POST TO BE ADJUSTABLE FOR 8 FEET WATER MAIN DEPTH. THE ELECTRICAL ALARM SWITCH SHALL BE PART NO. PCVS2 (OR EQUIVALENT).
17. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT RECORD OF UTILITY CONSTRUCTION. THE AS-BUILT SHALL INCLUDE LOCATION AND LENGTH DEVIATIONS OR CHANGES TO THE PLAN. CONTRACTOR TO VERIFY WITH OWNER OR ENGINEER WHETHER A PLAN WITH POST-CONSTRUCTION ELEVATIONS IS REQUIRED.
18. ALL MANHOLE CASTINGS IN PAVED AREAS SHALL BE SUMPED 0.05 FEET. RIM ELEVATIONS ON PLAN REFLECT THE SUMPED ELEVATIONS.
19. ALL CATCH BASIN CASTINGS IN CURB SHALL BE SUMPED 0.15 FEET AND MANHOLE CASTINGS IN PAVED AREAS SHALL BE SUMPED 0.05 FEET. RIM ELEVATIONS ON PLAN REFLECT THE SUMPED ELEVATIONS.

UTILITY LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		CURB AND GUTTER
SAN		SANITARY SEWER
FM	FM	SANITARY SEWER FORCE MAIN
STO		STORM SEWER
WAT		WATER MAIN
WAT		HYDRANT
GAS	GAS	GAS
PUG	PUG	UNDERGROUND ELECTRIC
POH	POH	OVERHEAD ELECTRIC
TUG	TUG	UNDERGROUND TELEPHONE
TOH	TOH	OVERHEAD TELEPHONE
FO	FO	TELEPHONE FIBER OPTIC
CTV	CTV	CABLE TELEVISION
DT		DRAIN TILE
		GATE VALVE
		FLARED END SECTION (WITH RIPRAP)
		LIGHT POLE

1" = 30'
0' 30' 60' 90'

NOT FOR CONSTRUCTION

DESIGNED: DMP
CHECKED: DMP
DRAWN: TDM
HORIZONTAL SCALE: 30'
VERTICAL SCALE:

INITIAL ISSUE: 03/07/22
REVISIONS:
1 03/25/22 CITY COMMENTS
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PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

TYLER D. MAXSON, P.E.
DATE: 03/25/22 LICENSE NO. ____

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
CHASKA, MN

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Westwood Professional Services, Inc.

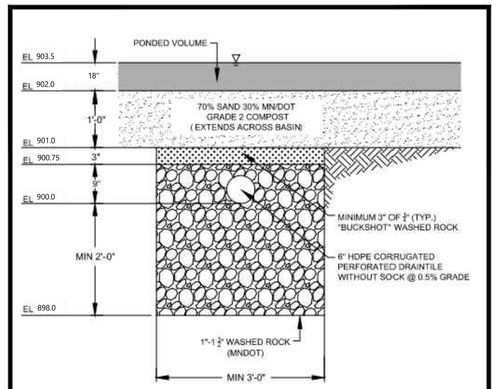
UTILITY PLAN

SHEET NUMBER: C5.0
DATE: 03/25/22
PROJECT NUMBER: 0033661.00

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE

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CALCULATIONS TO MEET RULES

VOLUME:

1. VOLUME REDUCTION IS CALCULATED AS 40% OF PONDED VOLUME.
2. IF NO VEGETATION IS PROVIDED, THE VOLUME CALCULATION IS LOWERED TO 50% OF ROCK VOLUME BELOW TILE.
3. TILE INVERT MUST BE 3 FT ABOVE DOWNSTREAM NWL, GROUNDWATER, BEDROCK, ETC.

WATER QUALITY:

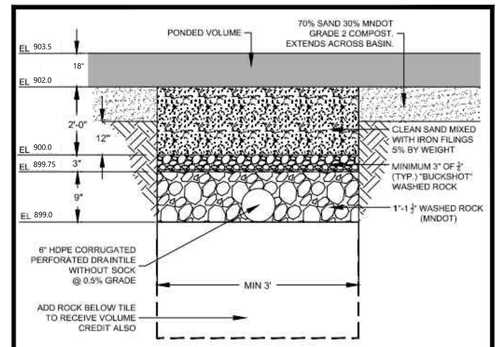
1. FILTRATION IS CALCULATED AS 75% TP REMOVAL AND 90% TSS REMOVAL.

DRAWDOWN:

1. 48 HOUR DRAWDOWN OF BMPS IS REQUIRED. TO DETERMINE LENGTH OF TRENCH NEEDED, USE FILTRATION RATE OF 50 CF OF PONDED VOLUME WILL PASS THROUGH ONE LINEAR FOOT OF 3' WIDE TRENCH, OR 17 CF PER SF OF SURFACE AREA.

CARVER COUNTY	WENCK ASSOCIATES Responsive partner. Exceptional outcomes.	BIORETENTION TRENCH	DEC 2016
			DETAIL 1

M:\1097\GENERAL DETAILS\December 2016 Details\1--BIORETENTION TRENCH.dwg



CALCULATIONS TO MEET RULES

VOLUME:

1. VOLUME REDUCTION IS CALCULATED AS 40% OF PONDED VOLUME.
2. TO RECEIVE VOLUME CREDIT, ADD 2 FEET OF ROCK BELOW TILE PER DETAIL 6.
3. IF NO VEGETATION IS PROVIDED, THE VOLUME CALCULATION IS LOWERED TO 50% OF ROCK VOLUME BELOW TILE.
4. TILE INVERT MUST BE 3 FT ABOVE DOWNSTREAM NWL, GROUNDWATER, BEDROCK, ETC.

WATER QUALITY:

1. IRON ENHANCED FILTRATION IS CALCULATED AS 90% TP REMOVAL AND 90% TSS REMOVAL.

DRAWDOWN:

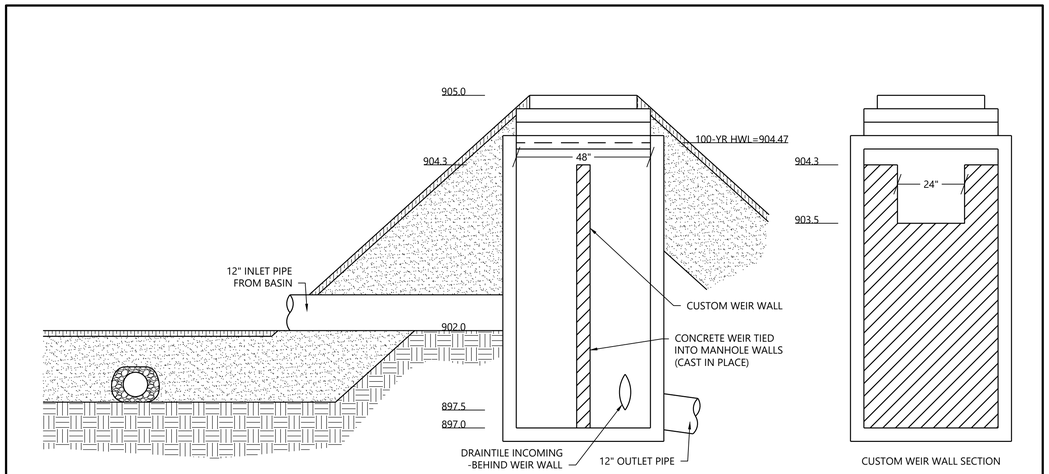
1. 48 HOUR DRAWDOWN OF BMPS IS REQUIRED. TO DETERMINE LENGTH OF TRENCH NEEDED, USE FILTRATION RATE OF 50 CF OF PONDED VOLUME WILL PASS THROUGH ONE LINEAR FOOT OF 3' WIDE TRENCH, OR 17 CF PER SF OF SURFACE AREA. RETROFITS USE MINIMUM OF 150 SF.

IRON FILINGS:

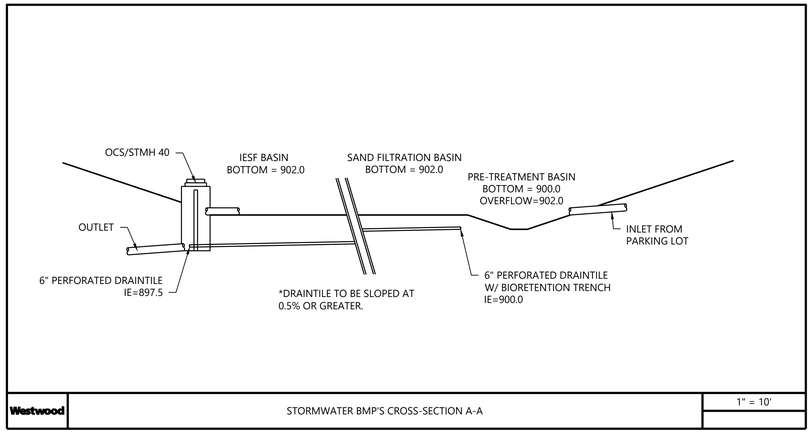
1. AMOUNT OF FILINGS CAN BE DETERMINED BY CALCULATING TOTAL SAND NEEDED TO FILL THE TRENCH, AND MULTIPLYING BY 5%.
2. SAND IRON NEEDS TO BE PRE-MIXED PRIOR TO INSTALLATION. CAN OCCUR OFF SITE.
3. IRON FILINGS MUST BE CLEANED AND WASHED. PROVIDE SUPPLIER INFORMATION TO WMO. NO OIL OR GREASE ALLOWED.

CARVER COUNTY	WENCK ASSOCIATES Responsive partner. Exceptional outcomes.	IRON ENHANCED SAND FILTER	DEC 2016
			DETAIL 2

M:\1097\GENERAL DETAILS\December 2016 Details\2--IRON ENHANCED SAND FILTER.dwg



Westwood	OCS/STMH 40 CROSS-SECTION	N.T.S.



Westwood	STORMWATER BMP'S CROSS-SECTION A-A	1" = 10'

NOT FOR CONSTRUCTION

DESIGNED: DMP
CHECKED: DMP
DRAWN: TDM
HORIZONTAL SCALE:
VERTICAL SCALE:

INITIAL ISSUE: 03/07/22

REVISIONS:		
1	03/25/22	CITY COMMENTS
2	.	.
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PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

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TYLER D. MAXSON, P.E.
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Minnetonka, MN 55343
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STORMWATER DETAILS

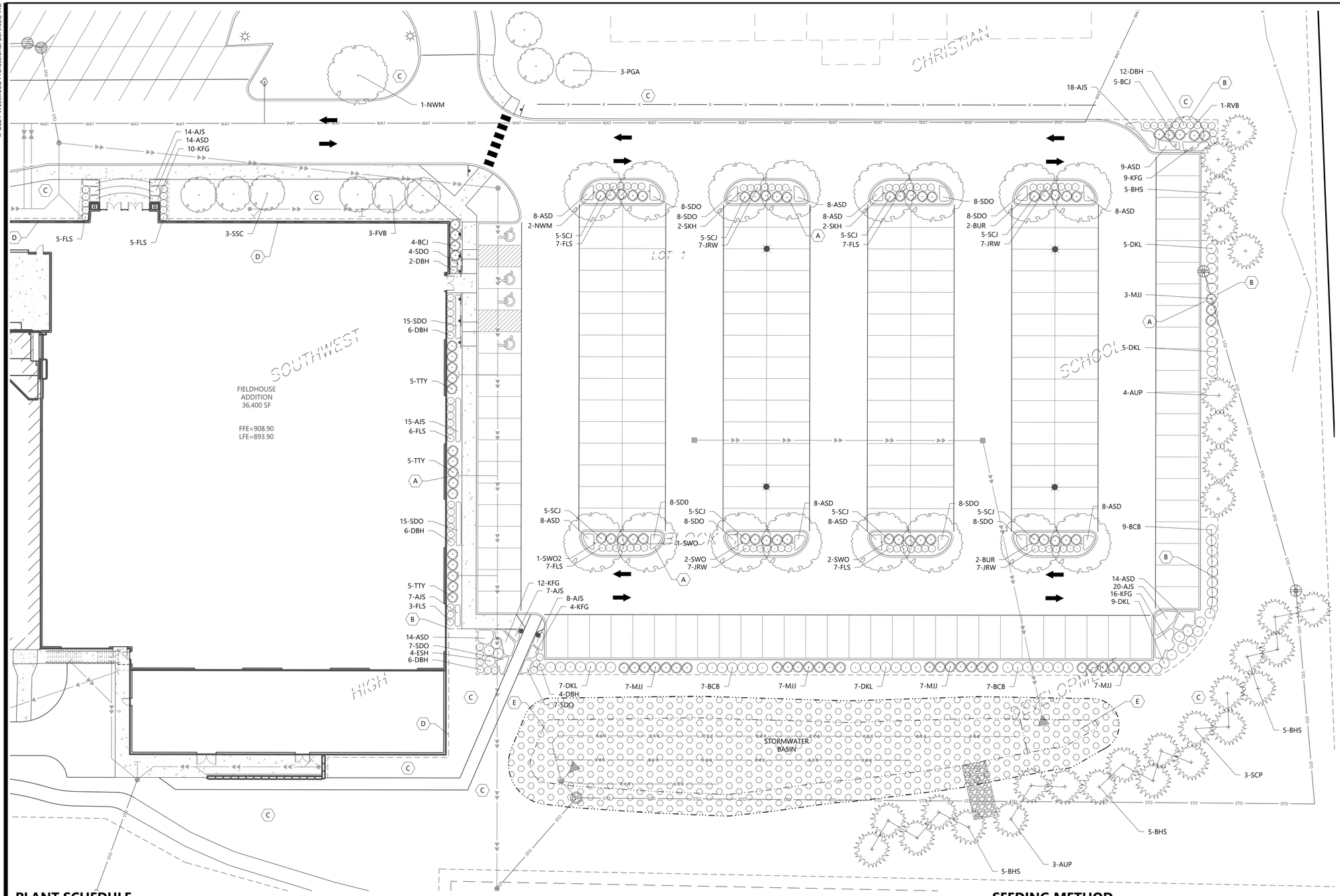
SHEET NUMBER:
C5.1
DATE: 03/25/22

PROJECT NUMBER: 0033661.00

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE

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LANDSCAPE REQUIREMENTS

TWO STORY SCHOOL ADDITION CALIPER INCHES REQUIRED:
SCHOOL ADDITION = 46,600 S.F.

OVER STORY TREES REQUIRED = GROSS SF OF ALL FLOORS / 320
TOTAL TWO STORY BUILDING S.F. (46,600±SF)/320 = 146 CAL. IN.

TWO STORY BUILDING CALIPER INCH BREAKDOWN:		TREES REQUIRED:
60% @ 2.5" =	87.6 CAL. IN.	35 TREES
10% @ 3.0" =	14.6 CAL. IN.	5 TREES
10% @ 3.5" =	14.6 CAL. IN.	4 TREES
10% @ 4.0" =	14.6 CAL. IN.	4 TREES
10% @ 4.5" =	14.6 CAL. IN.	3 TREES
100%	188.0 CAL. IN.	51 TREES

SITE CALIPER INCHES REQUIRED:

OVERSTORY TREE CALIPER INCHES REQUIRED: 146.0 CAL. IN.

UNDERSTORY TREE CALIPER INCHES REQUIRED = 25% OVERSTORY REQ.
146.0 * .25 = 13 UNDERSTORY TREES

SHRUBS REQUIRED = BUILDING GROSS AREA OF ALL FLOORS / 300
46,600 / 300 = 155 SHRUBS

CONIFEROUS TREES CAN REPLACE DEC. TREE REQ. WITH HEIGHT / 2.4
ONE 6' TREE / 2.4 = ONE 2.5" CAL TREE

SITE CALIPER INCHES PROVIDED:

OVERSTORY DECIDUOUS TREES:	61.0 CAL. IN.
CONIFEROUS TREES:	75.0 CAL. IN.
ORNAMENTAL TREES:	20.0 CAL. IN.
TOTAL CALIPER INCHES PROVIDED:	156.0 CAL. IN.

LANDSCAPE LEGEND

OVERSTORY DECIDUOUS TREE
CONIFEROUS TREE
ORNAMENTAL TREE
SHRUBS
PERENNIALS
EDGER

LANDSCAPE KEYNOTES (A)

A SHREDDED HARDWOOD MULCH (TYP.)
B EDGER (TYP.)
C SOD (TYP.)
D 1' WIDE MAINTENANCE STRIP (ROCK MULCH, EDGING FABRIC)
E SEED MIX - MNDOT SEED MIX 33-262, DRY SWALE /POND (SEE SEEDING METHOD NOTES)

CITY PARKING LOT GREEN SPACE REQUIREMENT

- PARKING LOT AREA: 71,355 SF
- REQUIRED GREEN SPACE (10% OF PARKING LOT): 7,136 SF
- PROVIDED GREEN SPACE: 7,312 SF

PLANT SCHEDULE

CODE	QTY.	CAL. IN.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.
OVERSTORY DECIDUOUS - 17 (61.0 CAL. IN.)					
NWM	3	13.5	NORTHWOOD MAPLE / ACER RUBRUM 'NORTHWOOD'	4.5" BB	AS SHOWN
SKH	4	16	SKYLINE HONEYLOCUST / GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE'	4.0" BB	AS SHOWN
BUR	4	14	BUR OAK / QUERCUS MACROCARPA	3.5" BB	AS SHOWN
SWO	5	15	SWAMP WHITE OAK / QUERCUS BICOLOR	3.0" BB	AS SHOWN
SWO2	1	2.5	SWAMP WHITE OAK / QUERCUS BICOLOR	2.5" BB	AS SHOWN
MID-STORY DECIDUOUS - 10 (20 CAL. IN.)					
FVB	3	6	FOX VALLEY CLUMP BIRCH / BETULA NIGRA 'LITTLE KING'	6' HT., BB CLUMP	AS SHOWN
RVB	1	2	RIVER BIRCH / BETULA NIGRA	6' HT., BB CLUMP	AS SHOWN
SSC	3	6	SPRING SNOW CRAB / MALUS 'SPRING SNOW'	2.0" BB	AS SHOWN
PGA	3	6	PRAIRIE GOLD ASPEN / POPULUS TREMULOIDES 'NEArb'	2.0" BB	AS SHOWN
OVERSTORY CONIFEROUS - 30 (75.0 CAL. IN.)					
BHS	20	50	BLACK HILLS SPRUCE / PICEA GLAUCA DENSATA	6' HT., BB	AS SHOWN
AUP	7	17.5	AUSTRIAN PINE / PINUS NIGRA	6' HT., BB	AS SHOWN
SCP	3	7.5	SCOTCH PINE / PINUS SYLVESTRIS	6' HT., BB	AS SHOWN

ABBREVIATIONS: B&B = BALLED AND BURLAPPED CAL. = CALIPER HT. = HEIGHT MIN. =MINIMUM O.C. = ON CENTER SP. = SPREAD
QTY.= QUANTITY CONT. = CONTAINER NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

CODE	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.
DECIDUOUS SHRUBS - 171				
ESH	4	ENDLESS SUMMER HYDRANGEA / HYDRANGEA MACROPHYLLA BAILMER'	24" HT., POT	4'-0" O.C.
JRW	28	JAVA RED WEIGELA / WEIGELA FLORIDA 'JAVA RED'	24" HT., POT	3'-0" O.C.
FLS	47	FIRE LIGHT SPIREA / SPIRAEA 'FIRE LIGHT'	18" HT., POT	2'-0" O.C.
DBH	36	DWARF BUSH HONEYSUCKLE / DIERVILLA LONICERA	18" HT., POT	2'-0" O.C.
BCB	23	BLACK CHOKEBERRY / ARONIA MELANOCARPA ELATA	18" HT., POT	5'-0" O.C.
DKL	33	DWARF KOREAN LILAC / SYRINGA MEYERI 'PALIBIN'	18" HT., POT	5'-0" O.C.
CONIFEROUS SHRUBS - 95				
SCJ	40	SCANDIA JUNIPER / JUNIPERUS SABINA 'SCANDIA'	24" SPRD., POT	4'-0" O.C.
MJJ	31	MINT JULIP JUNIPER / JUNIPERUS CHINENSIS 'MONLEP'	36" SPRD., POT	4'-0" O.C.
BCJ	14	BLUE CHIP JUNIPER / JUNIPERUS HORIZONTALIS 'BLUE CHIP'	36" SPRD., POT	4'-0" O.C.
TYY	10	TAUTON YEW / TAXUS X MEDIA 'TAUNTON'	36" SPRD., POT	4'-0" O.C.
PERENNIALS - 351				
ASD	115	APRICOT SPARKLES DAYLILY / HEMEROCALLIS 'APRICOT SPARKLES'	NO. 1 CONT.	12" O.C.
SDO	96	STELLA DE ORO DAYLILY / HEMEROCALIS ' STELLA DE ORO'	NO. 1 CONT.	12" O.C.
KFG	51	FEATHER REED GRASS / CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	NO. 1 CONT.	16" O.C.
AJS	89	AUTUMN JOY SEDUM / SEDUM X 'AUTUMN JOY'	NO. 1 CONT.	16" O.C.

SEEDING METHOD

Drop Seeding Onto Tilled Sites (per MnDot Standards)
This is the "standard" method for seeding on prepared sites such as those on construction projects.

A) Site Preparation - The site should be prepared by loosening topsoil to a minimum depth of 3 inches.
B) Fertilizer – Use a fertilizer analysis based on a soil test or a general recommendation is a 10-10-10 (NPK) commercial grade analysis at 200 lbs/acre.
C) Seed Installation - Seed should be installed with a drop seeder that will accurately meter the types of seed to be planted, keep all seeds uniformly mixed during the seeding and contain drop seed tubes for seed placement (Brillion-type). The drop seeder should be equipped with a cultipacker assembly to ensure seed-to-soil contact.
D) Seeding Rates - Rates are specified in the mixture tabulation for the specified mix.
E) Packing – If the drop seeder is not equipped with a cultipacker, the site should be cultipacked following the seeding to ensure seed-to-soil contact.
F) Mulch - The site should be mulched and disc-anchored following cultipacking. The standard mulch is Mn/DOT Type 1 at a rate of 2.0 tons/acre.

Irrigation
Seed to be irrigated on its own irrigation zone until established. Once established this zone will be turned off.

1" = 20'
0' 20' 40' 60'

NOT FOR CONSTRUCTION

DESIGNED:
CHECKED:
DRAWN:
HORIZONTAL SCALE: 20'
VERTICAL SCALE:

INITIAL ISSUE: 03/07/22
REVISIONS: 03/25/22 CITY COMMENTS

PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

TYLER D. MAXSON, P.E.
DATE 03/25/22 LICENSE NO. ____

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
CHASKA, MN

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westwoodps.com
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LANDSCAPE PLAN

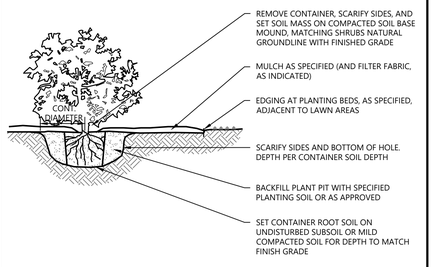
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DATE: 03/25/22

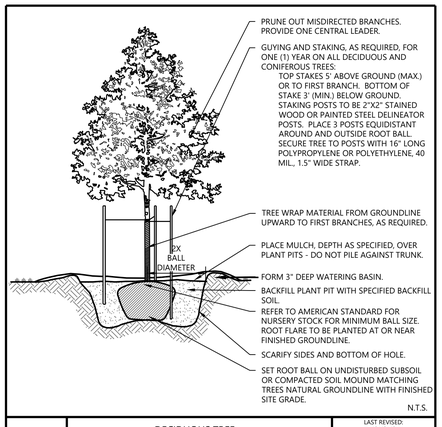
PROJECT NUMBER: 0033661.00

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE

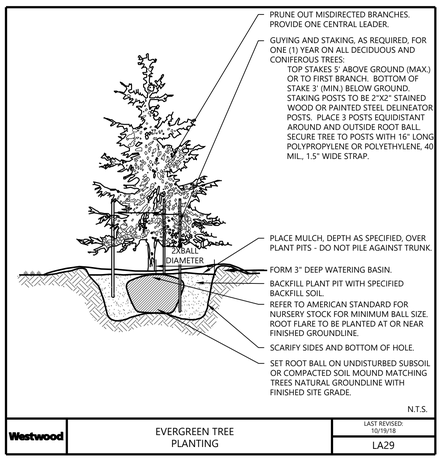
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Westwood	SHRUB & PERENNIAL CONTAINER PLANTING	LAST REVISED: 10/23/18
		LA27-C



Westwood	DECIDUOUS TREE PLANTING	LAST REVISED: 10/19/18
		LA28



Westwood	EVERGREEN TREE PLANTING	LAST REVISED: 10/19/18
		LA29

PLANTING NOTES

1. CONTRACTOR SHALL CONTACT COMMON GROUND ALLIANCE AT 811 OR CALL811.COM TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANTS OR LANDSCAPE MATERIAL.
2. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR.
5. CONTRACTOR SHALL PROVIDE TWO YEAR GUARANTEE OF ALL PLANT MATERIALS. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
6. ALL PLANTS TO BE SPECIMEN GRADE, WISCONSIN-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
   ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, SCARS, ETC.
   ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
   ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
   ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
   CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.
7. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
8. PLANTS TO BE INSTALLED AS PER WILA & ANSI STANDARD PLANTING PRACTICES.
9. PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
10. PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
11. OPEN TOP OF BURLAP ON BB MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS.
12. PRUNE PLANTS AS NECESSARY - PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
13. WRAP ALL SMOOTH-BARKED TREES - FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
14. STAKING OF TREES AS REQUIRED; REPOSITION, PLUMB AND STAKE IF NOT PLUMB AFTER ONE YEAR.
15. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
16. BACKFILL SOIL AND TOPSOIL TO ADHERE TO WIS/DOT STANDARD SPECIFICATION (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 4" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 12" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
17. PROVIDE A MINIMUM OF 4" TOPSOIL IN LAWN AREAS AND 12" TOPSOIL IN LANDSCAPE BEDS. ADD SOIL AMENDMENTS FOR OPTIMUM PLANT GROWTH. ALL PARKING ISLAND GRADES SHALL HAVE A SIGNIFICANT CROWN.
18. MULCH TO BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS. TREE AND SHRUB PLANTING BEDS SHALL HAVE 4" DEPTH OF SHREDDED HARDWOOD MULCH. SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. PERENNIAL AND ORNAMENTAL GRASS BEDS SHALL HAVE 2" DEPTH SHREDDED HARDWOOD MULCH. SINGLE TREE AND SHRUB PLANTINGS SHALL HAVE A 4" DEPTH SHREDDED HARDWOOD MULCH RING AROUND EACH BASE. DECIDUOUS PLANT MATERIAL SHALL HAVE A MINIMUM 3' DIAMETER RING, EVERGREEN PLANT MATERIAL SHALL HAVE A RING TO THE DRIP LINE. MULCH TO BE FREE OF DELETERIOUS MATERIAL AND MULCH TO BE ON COMMERCIAL GRADE FILTER FABRIC, BY TYPAR, OR APPROVED EQUAL WITH NO EXPOSURE. MULCH AND FABRIC TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. MULCH TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
19. EXISTING TREES AND SHRUBS, AROUND THE SITE, SHALL BE PRUNED TO REMOVE DEAD OR UNDESIRABLE LIMBS AND TO SHAPE PLANT FOR DESIRABLE APPEARANCE AND COMPLETED BY A QUALIFIED INDIVIDUAL. CONTRACTOR TO CLEAR AND GRUB EXISTING VEGETATION AND DISPOSE OF ALL REMOVALS OFF-SITE PER PROJECT IMPROVEMENTS.
20. EDGING TO BE COMMERCIAL GRADE VALLEY-VIEW BLACK DIAMOND (OR EQUAL) POLY EDGING OR SPADED EDGE, AS INDICATED. POLY EDGING SHALL BE PLACED WITH SMOOTH CURVES AND STAKED WITH METAL SPIKES NO GREATER THAN 4 FOOT ON CENTER WITH BASE OF TOP BEAD AT GRADE, FOR MOWERS TO CUT ABOVE WITHOUT DAMAGE. UTILIZE CURBS AND SIDEWALKS FOR EDGING WHERE POSSIBLE. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. INDIVIDUAL TREE, SHRUB, OR RAIN-GARDEN BEDS TO BE SPADED EDGE, UNLESS NOTED OTHERWISE. EDGING TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
21. ALL DISTURBED AREAS TO BE SODDED, UNLESS OTHERWISE NOTED. PARKING LOT ISLANDS TO BE SODDED WITH SHREDDED HARDWOOD MULCH AROUND ALL TREES AND SHRUBS. SOD TO BE STANDARD MINNESOTA GROWN AND HARDY BLUEGRASS MIX, FREE OF LAWN WEEDS. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE DRAINAGE. SLOPES OF 3:1 OR GREATER SHALL BE STAKED. SEED AS SPECIFIED AND PER MN/DOT SPECIFICATIONS. IF NOT INDICATED ON LANDSCAPE PLAN, SEE EROSION CONTROL PLAN.
22. PROVIDE IRRIGATION TO ALL PLANTED AREAS ON SITE. IRRIGATION SYSTEM TO BE DESIGN/BUILD BY LANDSCAPE CONTRACTOR. SEE PLAN FOR LIMITS OF IRRIGATION. LANDSCAPE WITHIN LANDSCAPE/IRRIGATION DASHED LINE TO BE IRRIGATED FROM BUILDING. LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. CONTRACTOR TO WATER PLANT MATERIAL DURING INSTALLATION AND DURING ESTABLISHMENT PERIOD. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR. VOLUME OF WATER TO BE PER PLANT REQUIREMENT FOR ESTABLISHMENT AND NORMAL GROWTH. CONTRACTOR TO PROVIDE OPERATION MANUALS, AS-BUILT PLANS, AND NORMAL PROGRAMMING. SYSTEM SHALL BE WINTERIZED AND HAVE SPRING STARTUP DURING FIRST YEAR OF OPERATION. SYSTEM SHALL HAVE ONE-YEAR WARRANTY ON ALL PARTS AND LABOR. ALL INFORMATION ABOUT INSTALLATION AND SCHEDULING CAN BE OBTAINED FROM THE GENERAL CONTRACTOR.
23. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.
24. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
25. VERIFY ALL LANDSCAPE IMPROVEMENTS WITH REMOVALS AND SITE WORK.
26. ALL DISTURBED LANDSCAPED AREAS, NOT INDICATED AS PLANTING BEDS, ARE TO BE SODDED, UNLESS NOTED OTHERWISE. SOD IS TO BE PRIMARILY KENTUCKY BLUEGRASS, FREE OF LAWN GRASS WEEDS. MATCH INTO EXISTING, AS APPLICABLE. ANCHOR SOD ON SLOPED OR POTENTIAL EROSION AREAS, OR AS REQUIRED.
27. CONTRACTOR TO VERIFY PLANTS REQUIRED AS REFLECTED ON PLAN, NOTIFY LANDSCAPE ARCHITECT IF PLAN AND SCHEDULE DO NOT MATCH. ALL PLANT MATERIAL TO ADHERE TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST VERSION. ADD FERTILIZER, HERBICIDE, AND PESTICIDE AS NECESSARY FOR OPTIMUM GROWTH.

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

NOT FOR CONSTRUCTION

DESIGNED: ---
CHECKED: ---
DRAWN: ---
HORIZONTAL SCALE: ###
VERTICAL SCALE: ---

	INITIAL ISSUE:	03/07/22
REVISIONS:		
1	03/25/22	CITY COMMENTS
2	-	-
3	-	-
4	-	-
5	-	-

PREPARED FOR:
SOUTHWEST CHRISTIAN HIGH SCHOOL
1981 BAVARIA ROAD
CHASKA, MINNESOTA 55318

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TYLER D. MAXSON, P.E.
DATE 03/25/22 LICENSE NO. ---

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE CHASKA, MN

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12701 Whitewater Drive, Suite #200
Minnetonka, MN 55343
westwoodps.com
Phone (952) 937-5150
Fax (952) 937-5822
Toll Free (888) 937-5150
Westwood Professional Services, Inc.

LANDSCAPE DETAILS

SHEET NUMBER: L1.1
DATE: 03/25/22

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE
PROJECT NUMBER: 0033661.00

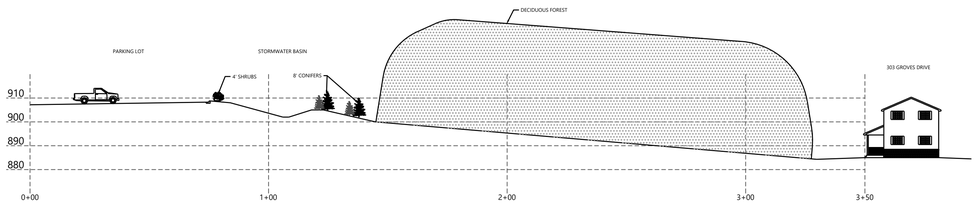
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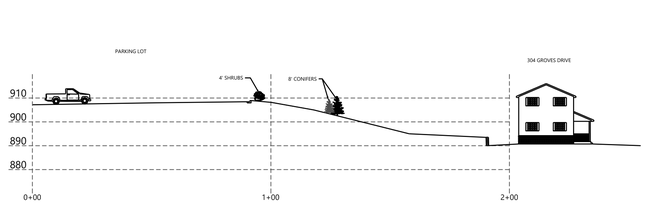
Call 48 Hours before digging:

811 or call811.com
Common Ground Alliance

SECTION A-A



SECTION B-B



1" = 30'

0' 30' 60' 90'

NOT FOR CONSTRUCTION

DESIGNED: .
CHECKED: .
DRAWN: .
HORIZONTAL SCALE: 30'
VERTICAL SCALE: .

INITIAL ISSUE: 03/07/22
REVISIONS:
1 03/25/22 CITY COMMENTS
2 . . .
3 . . .
4 . . .
5 . . .

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HEADLIGHT SECTION PLAN

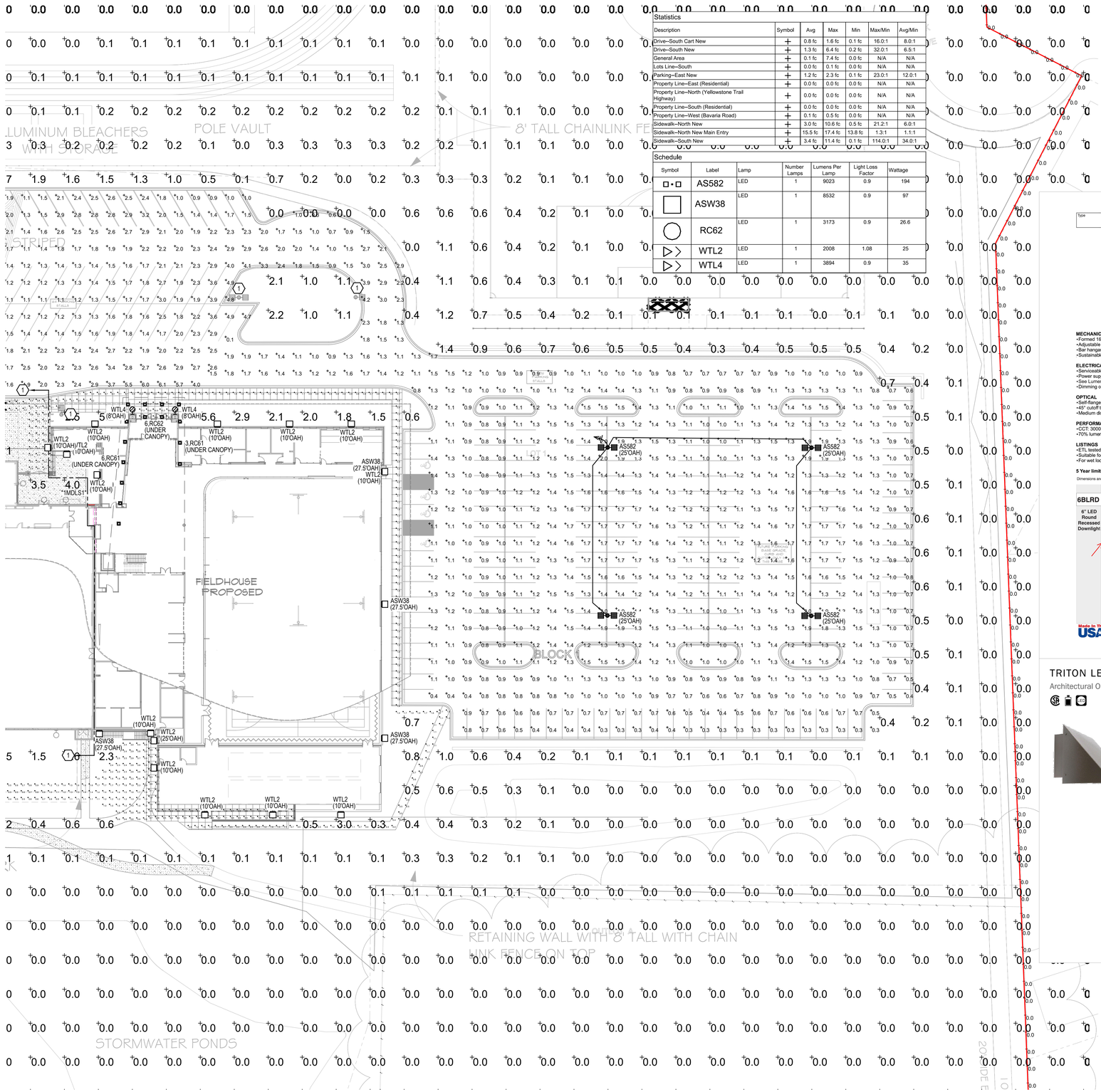
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L1.2

DATE: 03/25/22

PROJECT NUMBER: 0033661.00

SOUTHWEST CHRISTIAN HIGH SCHOOL FIELDHOUSE



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Drive–South Cart New	+	0.8 fc	1.6 fc	0.1 fc	16.0:1	8.0:1
Drive–South New	+	1.3 fc	6.4 fc	0.2 fc	32.0:1	6.5:1
General Area	+	0.1 fc	7.4 fc	0.0 fc	N/A	N/A
Lots Line–South	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Parking–East New	+	1.2 fc	2.3 fc	0.1 fc	23.0:1	12.0:1
Property Line–East (Residential)	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
Property Line–North (Yellowstone Trail Highway)	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
Property Line–South (Residential)	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
Property Line–West (Bavaria Road)	+	0.1 fc	0.5 fc	0.0 fc	N/A	N/A
Sidewalk–North New	+	3.0 fc	10.6 fc	0.5 fc	21.2:1	6.0:1
Sidewalk–North New Main Entry	+	15.5 fc	17.4 fc	13.8 fc	1.3:1	1.1:1
Sidewalk–South New	+	3.4 fc	11.4 fc	0.1 fc	114.0:1	34.0:1

Schedule

Symbol	Label	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
□•□	AS582	LED	1	9023	0.9	194
□	ASW38	LED	1	8532	0.9	97
◯	RC62	LED	1	3173	0.9	26.6
▷▷	WTL2	LED	1	2008	1.08	25
▷▷	WTL4	LED	1	3894	0.9	35

KEYED NOTES

1. EXISTING LIGHTING TO REMAIN.

GENERAL NOTES

1. REFER TO E100 FOR SITE LIGHTING FINAL LAYOUTS AND CIRCUITING & E511 FOR FIXTURE SELECTIONS.

RC62

Type | Job, Ref.

Peachtree LIGHTING

6BLRD

6" LED
Recessed Downlight

1200 - 12000 Lumens

PRODUCT SPECIFICATION DATA

MECHANICAL
- Formed 16 ga. galvanized steel ceiling pan with built-in Plaster ring
- Adjustable to 1 ½" ceiling thickness
- Bar hangars accommodate 27" span
- Sustainable - electrical components accessible though aperture

ELECTRICAL
- Serviceable and upgradable light engine.
- Power supply is overload and short circuit protected
- See Lumens Column for standard dimming
- Dimming options available: Dim to 1%; Dim to Black; and Triac

OPTICAL
- Self-flanged lower reflector
- 45° cutoff to source
- Medium distribution standard.

PERFORMANCE
- CCT: 3000K, 3500K, 4000K @ 80+ CRI
- 70% lumen maintenance at 50,000 hours based on IESNA LM-80-2008.

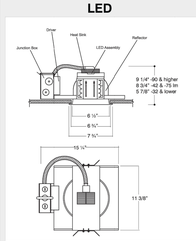
LISTINGS
- ETL tested & listed to ANSI/UL1598 and CAN/CSA C22.2 No. 250.0-08
- Suitable for damp location
- For wet location select -WL option (consult factory for -120 -WL)

5 Year limited warranty.

Dimensions and specifications in this literature are subject to change.



LED



DELIVERED LUMENS @ 35K	DIMMING	COLOR TEMPERATURE	CRI/REFLECTOR	REFLECTOR OPTIONS	OPTIONS	VOLTAGE
6BLRD						
6" LED Round Recessed Downlight -120 12418 lumens -90 9370 lumens -75 7447 lumens -60 5689 lumens -42 4309 lumens -32 3335 lumens -22 2384 lumens -17 1747 lumens -12 1258 lumens	-DIMLV10 0-10V Dim to 10% -DIMLV1 0-10V Dim to 1%* -DIMT1 Triac Dim to 1%* -DIMB Dim to Black (0.1%)** -ND No Driver (Order Remote Driver Panel (RDP) separately.)*** *12 DIMLV10 std -17 to -90 DIMLV std -120 DIMLV10 std ONLY* * -12 Option ONLY ** -12 to -32 Option ONLY *** -17 to -60 Option ONLY*	-30K 3000 K -35K 3500 K -40K 4000 K	-80 -90 Soft Haze White* -B Black* ** Powder Coat Finish*	-RC Reg. Clear Temp. Glass Lens -RCA Reg. Clear Acrylic Lens* -RPG Reg. Prismatic Temp. Glass Lens -RPA Reg. Prismatic Acrylic Lens -TRW Trim Ring White -TRB Trim Ring Black *Regressed Lens Holder is White Unless Specified Otherwise* *No Lens Available on the -120*	-F Fussing -WL Wet Location* (lens required) -EM3L1 Emergency** -EM6L4 Emergency*** -ITS Internal Test Switch -GTD Generator Transfer Device -RETR06 Retrofit Pan ** Req -WL & -EM3L1 or -EM6L4* *** -120 max EM3L4* *-EM Option Use Remote Test Switch*	-120 -277 *Voltage MUST be Specified*

SLOPED CEILING OPTIONS

-SCA614	Sloped Ceiling Adapter 10° to 14°
-SCA519	Sloped Ceiling Adapter 15° to 19°
-SCA622	Sloped Ceiling Adapter 20° to 22°
-SCA626	Sloped Ceiling Adapter 24° to 26°

White Unless Specified Otherwise. Cannot be used with decorative options.

DECORATIVE OPTIONS
ICE Supported Clear Side Glass

-ICE	Soda Lime Temp. Glass
-ICE-S	SOLID Soda Lime Temp. Glass
-ICE-C	Colorless Temp. Glass
-ICE-S-C	SOLID Colorless Temp. Glass
-ICE-O	Open Soda Lime Temp. Glass
-ICE-O-C	SOLID Open Colorless Temp. Glass

Made in The USA

Peachtree LIGHTING

6BLRD

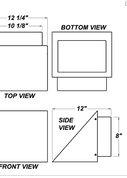
TRITON LED
Architectural Outdoor

WTL4

PROJECT:
TYPE:
PO#: QTY:
COMMENTS:

FEATURES
- Aluminum Housing w/ Textured Bronze Polyester Powder Coat Finish
- Aluminum Reflector
- Clear Tempered Glass Diffuser
- CSA Listed Wet Location For Wall Mounting -Down Light only
- Dark Sky Compliant
- Fully Gasketed
- Integral Emergency Battery Available
- LED Light Fixture
- Mounts Direct to Flat Surface w/ Two #8 Wall Anchors (Not Included)
- Surge Protector

LINE DRAWING
LINE DRAWING NOT TO SCALE



AS582, ASW38

AS1 LED
LED Area Luminaire

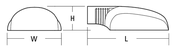
Buy American



AERIS

Specifications

EPA:	0.7 ft² (0.07 m²)
Length:	22-1/4" (564.4 mm)
Width:	13" (333.0 mm)
Height:	6-3/8" (115.9 mm)
Weight (max):	33 lbs (14.8 kg)



Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®2 or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: AS1 LED 42C 700 40K SR5 MVOLT SPA DDBXD

AS1 LED

Series	LEDs	Drive Current	Color Temperature	Distribution	Voltage	Mounting
AS1 LED	42C 42 LEDs (one engine)	350 350mA 530 530mA 700 700mA	30K 3000 K 40K 4000 K 50K 5000 K	SR2 Type II Short SR3 Type II SR4 Type IV SR5 Type V	MVOLT[1] 240[1] 480 120[1] 277[1] 208[1] 347	SPA Square pole mounting RPA Round pole mounting WBA Wall bracket

Control Options	Other Options	Finish (required)
Shipped installed PER NEMA twist-lock receptacle only (no controls) PER5 Five-wire receptacle only (no controls)[2] PER7 Seven-wire receptacle only (no controls)[2] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[3] BL30 Bi-level switched dimming, 30%[4] BL50 Bi-level switched dimming, 50%[4]	**Shipped separately**[5] PIMOTD03 Part no.gtr, dim till down[1] PIMOT303 Part no.gtr, dim 3 hrs[1] PIMOT603 Part no.gtr, dim 6 hrs[1] PIMOT793 Part no.gtr, dim 7.hrs[1] VG Vandal guard	SF Single fuse (120, 277, 347V)[1] DF Double fuse (208, 240, 480V)[1] DFL Diffusing lens DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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AS1-LED
Rev. 03/12/21

TRITON MINI LED
Architectural Outdoor

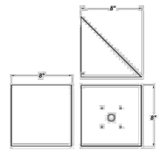
WTL1

PROJECT:
TYPE:
PO#: QTY:
COMMENTS:



FEATURES
- Aluminum Housing w/ Textured Bronze Polyester Powder Coat Finish,
- Aluminum Mount Pan & Reflector w/ Hi-Reflectance White Powder Coat Finish
- CSA Approved Wet Location For Wall Mounting -Down Light only
- Dark Sky Compliant
- LED Light Fixture
- Mounting Hardware Included
- Mounts Directly to Junction Box (Mounting Hardware Included)
- Semi-Opaque Polycarbonate Diffuser
- Surge Protector

LINE DRAWING
LINE DRAWING NOT TO SCALE



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: Shane D. Swenson
SIGNATURE:
DATE: 3/24/2022 LICENSE #: 54604 (Electrical)

1 PHOTOMETRIC SITE PLAN

3/24/22

NEW FIELDHOUSE

SCALE: 1" = 30'-0"

SAVE 3/24/2022 T:\JOBS\2021054 SWCHS FIELD HOUSE ADDITION (AS1188)\01 DRAWINGS\00 ELECTRICAL\SINE SOURCE PROJECT\SHEETS\E101 PHOTOMETRIC SITE PLAN.DWG
LAST SAVED: 24 Mar 22

CHRISTIAN HIGH SCHOOL

BGW ARCHITECTS

City of Chaska
Memorandum

To: **Planning Commission**
From: **Matt Clark, City Engineer**
Date: **February 9th 2022**
Subject: **Southwest Christian High School – Concept Plan**

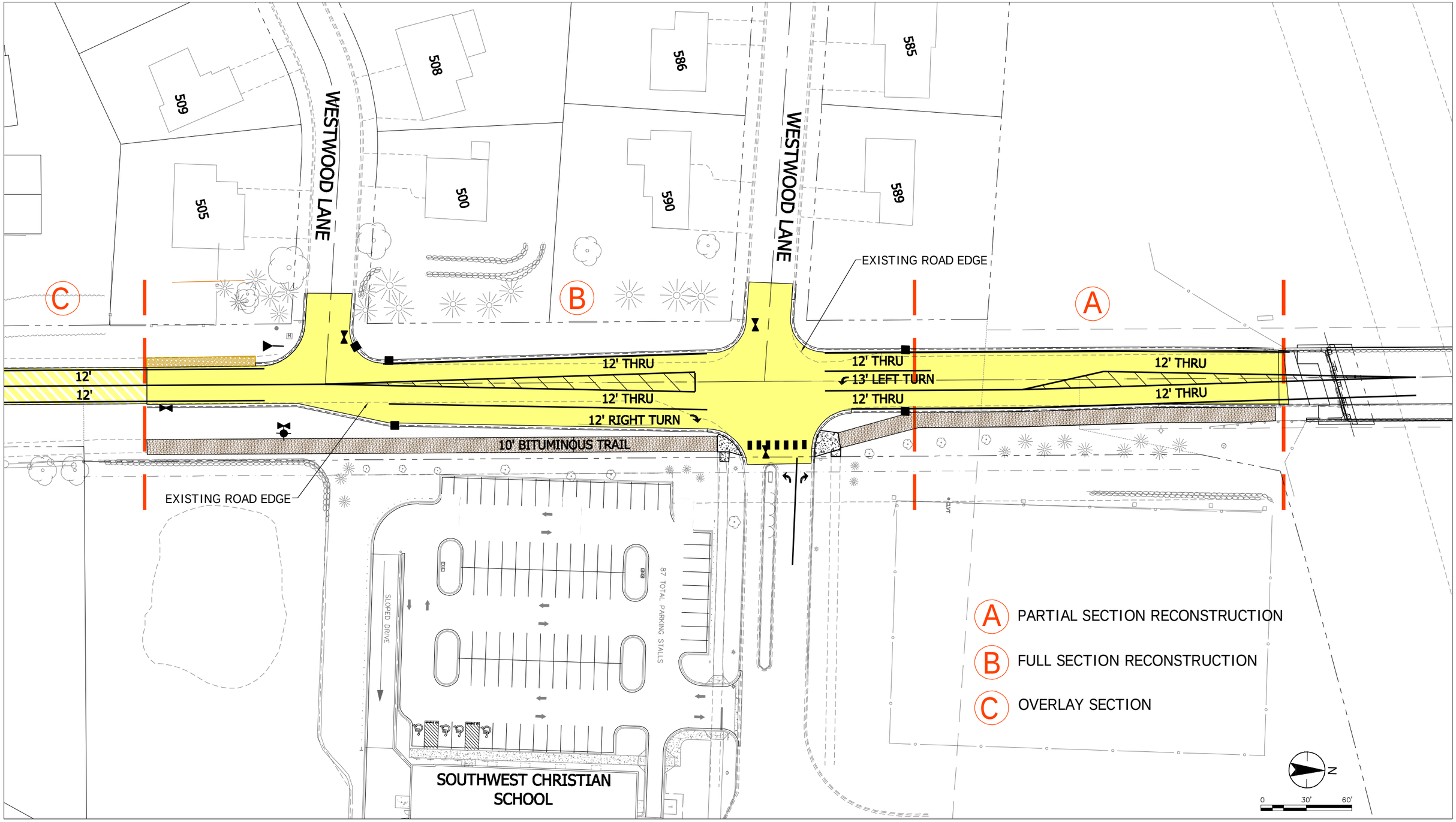
Back in 2011, Site/Building Plans and a Conditional Use Permit were approved for Southwest Christian High School to construct a new school on the east side of Bavaria Road, south of Highway 212. In 2017 the SWCHS building expansion occurred which planned accommodate an anticipated increase in enrollment. It was understood that if enrollment increases, it would cause an increase in traffic entering and exiting the school's single-site access on Bavaria Road.

No improvements were required on Bavaria Road to accommodate turn movements as the SWCHS campus was originally constructed. However, a condition of that initial site plan included a provision that SWCHS would enter into an agreement be partially responsible for installation of turn lanes on Bavaria Road as traffic volumes indicated the need.

The delay of improvements has occurred due to the well-known pandemic which has impacted schools over the last several years. With enrollment nearing capacity, combined with the final buildout being planned, the improvements are now in order. City staff plans to work closely with SouthWest Christian to develop a schedule for timing for construction the necessary turn lane improvements.

Separate from the road improvements, the stormwater management plan that was prepared for the full campus expansion will need to be updated to include the most current campus plan to ensure storm water management for the site are being properly accommodated.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300



TURN LANE LAYOUT AT SW CHRISTIAN SCHOOL ENTRANCE

CITY OF CHASKA

BAVARIA ROAD TURN LANES AT SW CHRISTIAN SCHOOL

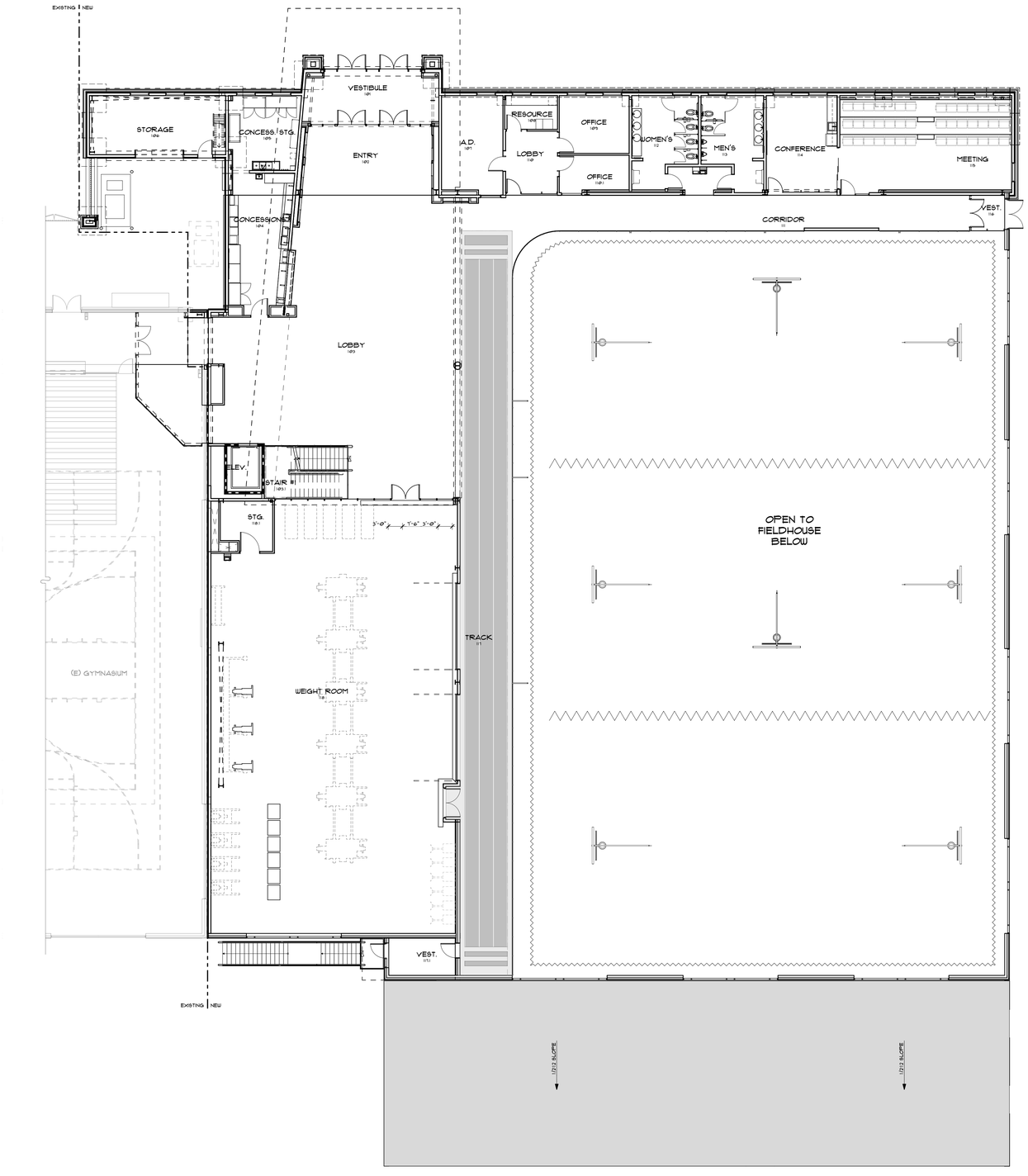
FIGURE 4

Stantec

2335 Highway 36 W
St. Paul, MN 55113
www.stantec.com

Date: 12/17/2018 - 10:37am
User: jmoring
Filename: V:\193804165\active\193804165.ASSS.001\09723P01_193804165 - Address Numbers
XRefs: 193804165-XSC; 193804165-XNO; 193804165-XPL; 193804165-XSS; 193804165.dwg
Drawing name: V:\193804165\CAD Dwg\FeasibilityReport\193804165-FiguresStreet.dwg

DATE: DECEMBER, 2018 PROJ. NO.: 193804165



MAIN FLOOR AREA: 15,222 S.F.
LOWER FLOOR AREA: 32,327 S.F.
TOTAL BUILDING AREA: 47,549 S.F.

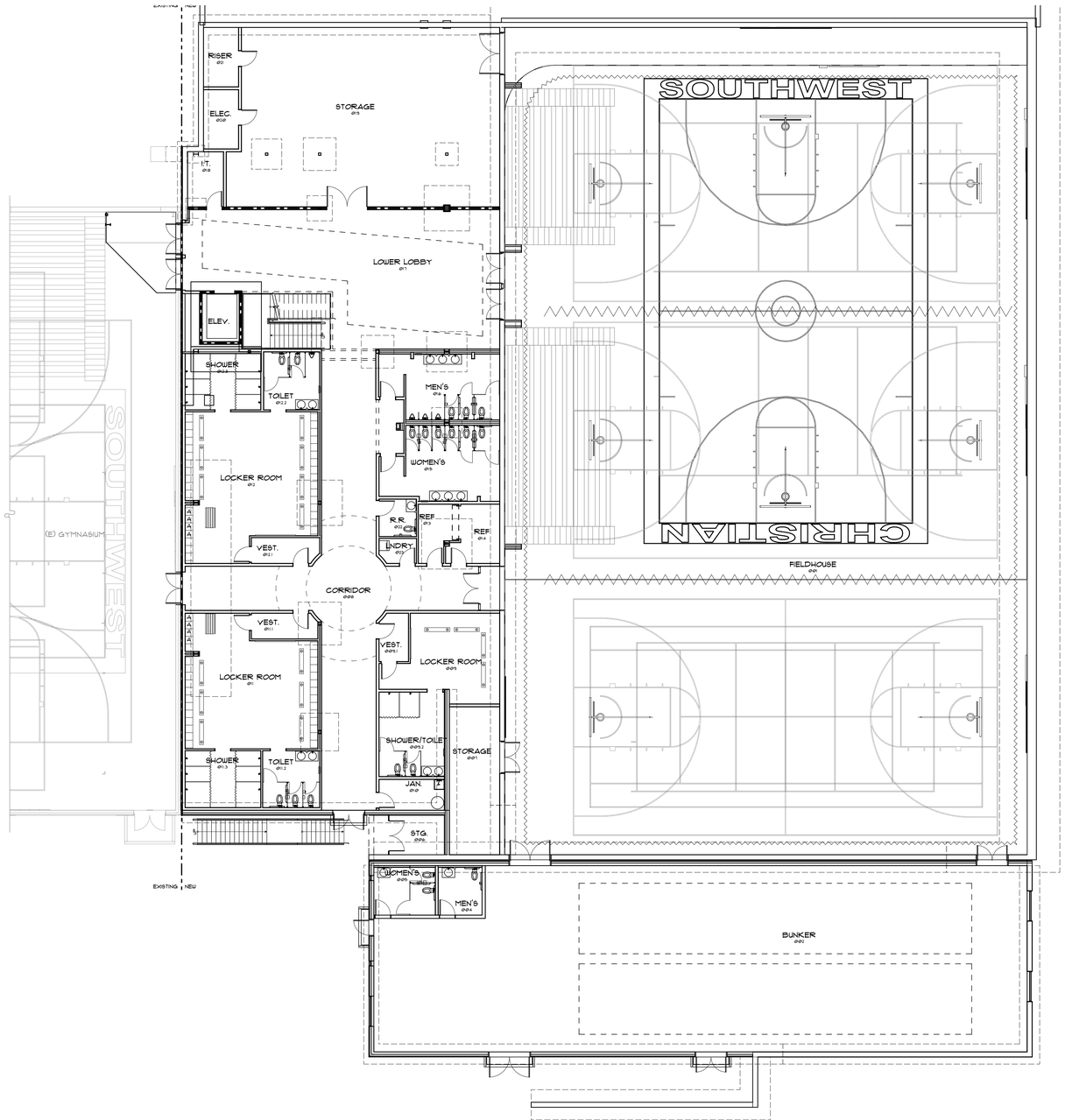
PLAN NORTH

2 | MAIN FLOOR PLAN

NEW FIELDHOUSE

3/3/22

BGW ARCHITECTS



MAIN FLOOR AREA: 15,222 S.F.
LOWER FLOOR AREA: 32,327 S.F.
TOTAL BUILDING AREA: 47,549 S.F.

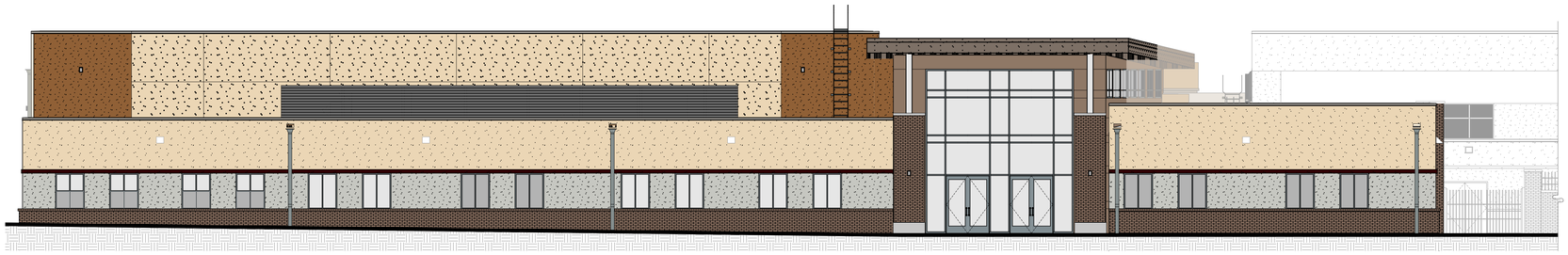
PLAN NORTH

3 LOWER FLOOR PLAN

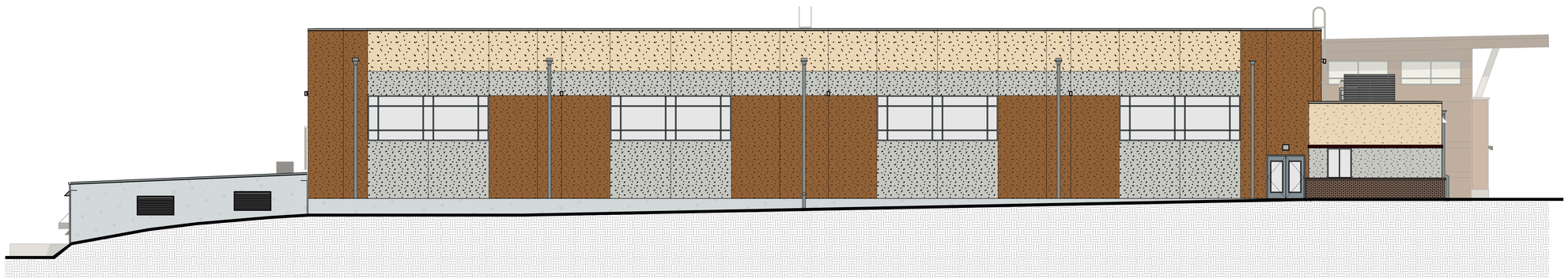
3/3/22

NEW FIELDHOUSE

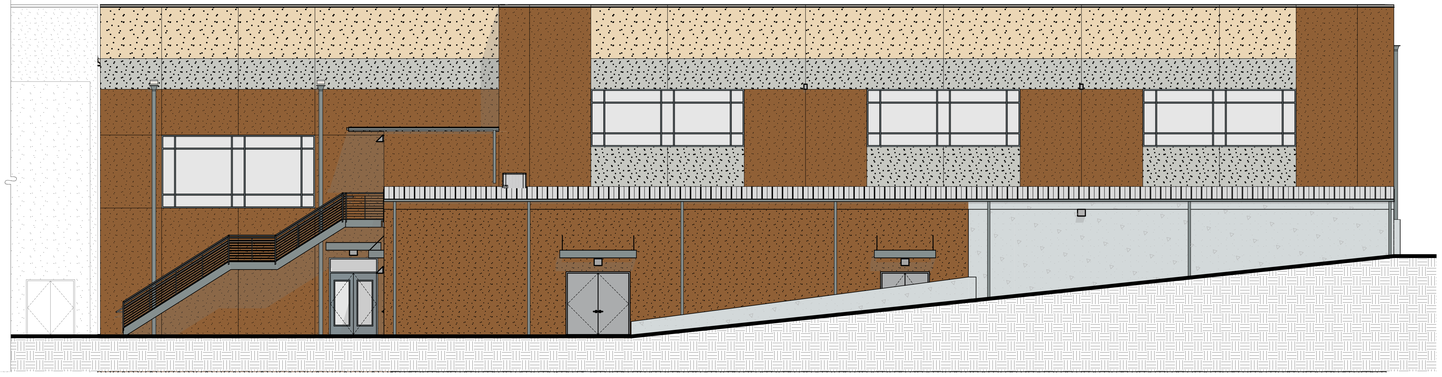
BGW ARCHITECTS



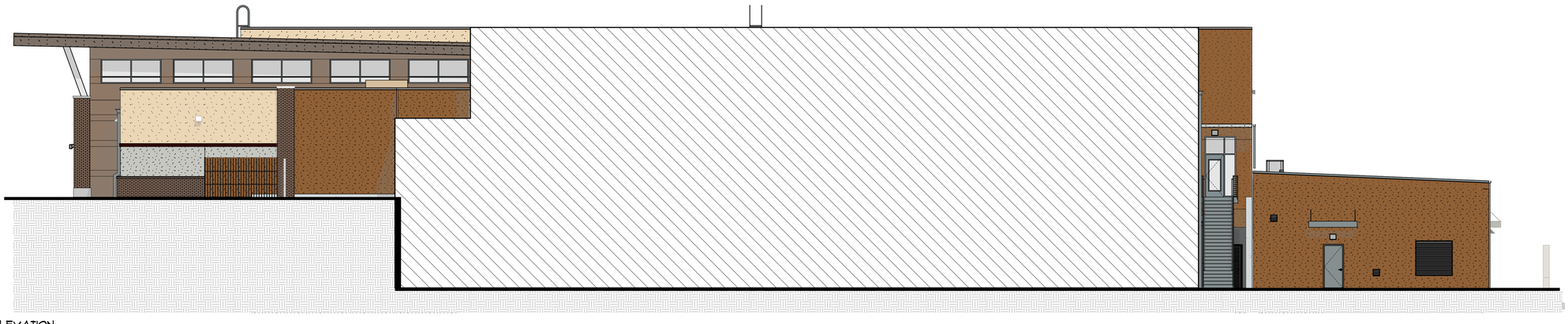
1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 EAST ELEVATION
SCALE: 1/8" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



4 WEST ELEVATION
SCALE: 1/8" = 1'-0"

5 EXTERIOR ELEVATIONS

NEW FIELDHOUSE

3/3/22

BGW ARCHITECTS

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: 2022 Union Contracts – LELS Lieutenants and Teamsters

Prepared By: Matt Podhradsky, City Administrator

The City of Chaska has four bargaining units representing about half of our employees, with the other half being non-union employees. The 4 bargaining units that we have include:

- Teamsters Local 320: Representing all employees except support and Department Heads in the Water/Sewer, Public Works, Electric and Golf Maintenance Departments
- Law Enforcement Labor Services Local 385: Representing all our Sergeants within the Police Department
- Law Enforcement Labor Services Local 210: Representing all our Patrol Officers and Investigative Officers within the Police Department
- Law Enforcement Labor Services Local 447: Representing all our Lieutenants with the Police Department

With our last contract having expired at the end of 2021, we have been meeting for several months with representatives of each of these bargaining units to negotiate the next contract. Two of the four union contracts were approved at a prior council meeting on February 28th: LELS 210 and 385. At this point we have completed negotiations with the remaining two bargaining groups, LELS 447 Lieutenants and Teamsters Local 320.

In these meetings we have went into negotiations with the following objectives being utilized to help drive this process:

A. Maintain a competitive wage scale for members of the bargaining units in comparison to other metro communities between 25,000- 35,000 residents
B. Recognize that the average cost-of-living increases of other similar Metro Communities, including the Cities surrounding Chaska, have been approximately 3%.
C. Recognize that a significant concern of employees is the potential for continued escalation of insurance costs, and that the City's contribution towards the employee benefits package should be comparable to other similar Metro Communities.
D. Recognize that employees in the City of Chaska are dedicated to the City and very productive public servants.
E. Recognize that one of our Organizational Values is a "Commitment to our Employees".
F. Recognize that the City's financial resources are limited.

The typical contract length that we have sought in the past has been 2 years. This has been effective both because it creates stability for the City and our Union employees, and it creates predictability in budgeting on an annual basis. You will see the contracts in front of you tonight

are proposed to be for 2 years, covering both 2022 and 2023. It should also be noted that what is being proposed for our Union contracts is very similar to what is budgeted and planned for our non-union employees as well. This equity between our Unions and our non-union employees has been critical in the past and helped demonstrate that we value all of our employees.

Proposed Contract Changes for 2022/2023

As you will see below, I have listed out any of the changes that are being proposed as part of the 2022/2023 contract by bargaining unit, as well as addressing some smaller compensation items within each of the contracts themselves.

For wage increase, each of the contracts would have wages increasing by 3%, which is identical to what was included in our 2022 budget and is identical to what all non-union employees received under our approved 2022 budget. It should be noted that that we added a "lookback provision" in the contract. What this lookback provision states, is that annually we will look back to ensure our COLA increase are in line with other comparable cities COLA adjustments. In this way we make sure over time our increases are staying consistent with the market and we do not start falling behind. These market adjustments would not be retroactive but instead be used to make sure our base is good moving forward in our future contracts.

As for Contributions to our Employees' benefit costs, we are recommending a 0% increase. As we saw an actual decrease in our premium costs for 2022, even with a 0% increase, employees will see benefit from this. This is consistent with what we approved in our 2022 budget and consistent with what was done for our non-union employees. We will meet later in 2022 to discuss employer contribution changes for 2023 once we have more information on whether we will see an increase or decrease.

Besides the main items of wages and benefits, below are other specific changes being recommended in each of our 4 union contracts:

LELS Lieutenants Police Contracts:

- **Holidays:** Holiday pay for police is moving to a holiday bank. The holiday hours will be placed into a bank on Jan 1st. This has to do with the way officers are scheduled and paid. The bank will make it more convenient and straightforward for police, and for backend processing. The amount that goes into a holiday bank will be based on what shift the employee works (8,10, or 12).
- **Healthcare Savings Plan (HCSP):** Employer contribution is 1%. Lieutenant contribution is 3.5%.
- **Uniform Allowances:** Increased by 3%.
- **On-Call:** Lieutenant working on call shall receive 3 hours of straight time pay or compensatory time at the Lieutenants currently hourly rat at their Supervisors discretion.

Teamsters Local 320:

- **Uniform Allowances:** Increased by 3%.
- **On call pay:** On call pay is given per day, with a certain number of hours paid depending on the day of the week. The total hours = 18 hours of pay.

- **Meter reconnects pay** rather than receiving a minimum two-hour call-out pay, employees would receive pay equal to the top lineman pay per meter reconnect. This amount will increase by the negotiated COLA percentage each year.
- **Phone calls:** Defined different timeframes/holidays and pay that occurs when calls are taken during those times.
- **Seniority:** More definition was provided on what seniority is and how it is utilized in potential layoffs, promotions, etc…
- **Probationary period:** Increased from 6 months to 1 year.
- **Incentive pay program:** There were some minor changes made to certain courses in the incentive program.

CITY COUNCIL ACTION REQUESTED

Motion to approve employment contracts for 2022 between the City of Chaska and LELS Local 447 and Teamsters Local 320 with these agreements becoming effective January 1, 2022.

LABOR AGREEMENT

BETWEEN

THE CITY OF CHASKA

AND

LAW ENFORCEMENT LABOR SERVICES

LOCAL #447

JANUARY 1ST 2022 THROUGH DECEMBER 31, 2023

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ARTICLE 1 – PURPOSE OF AGREEMENT

This AGREEMENT is entered into as of January 1st, 2022 between the City of Chaska, hereinafter called the EMPLOYER, and Law Enforcement Labor Services, Inc. (LELS) Local #447 hereinafter called the UNION.

It is the intent and purpose of this AGREEMENT to:

1.1 Assure sound and mutually beneficial working and economic relationships between the parties hereto:

1.2 Establish procedures for the resolution of disputes concerning this AGREEMENT'S interpretation and/or application, and

1.3 Place in written form the party's agreement upon terms and conditions of employment for the duration of this AGREEMENT.

The EMPLOYER and the UNION, through this AGREEMENT, shall continue their dedication to the highest quality Police service and protection to the residents of the City of Chaska. Both parties recognize this AGREEMENT as a pledge of this dedication.

ARTICLE 2 – RECOGNITION

2.1 The EMPLOYER recognizes, the UNION as the exclusive representative, under Minnesota Statutes, Section 179.67, Subdivision 3, and Section 179.71, Subdivision 3, for all personnel in the following job classifications:

Lieutenant

2.2 In the event the EMPLOYER and the UNION are unable to agree as to the inclusion or exclusion of a new or modified job class, the issue shall be submitted to the Bureau of Mediation Services for determination.

ARTICLE 3 – DEFINITIONS

3.1 UNION: Law Enforcement Labor Services Inc. Local #447.

3.2 UNION MEMBER: A member of LAW ENFORCEMENT LABOR SERVICES, INC. Local #447.

3.3 SUPERVISOR: A member of the exclusively recognized bargaining until LELS #447.

3.4 DEPARTMENT: The Chaska Police Department.

3.5 EMPLOYER: The City of Chaska

3.6 UNION OFFICER: Lieutenant(s) elected or appointed by the UNION.

3.7 CHIEF: The Chief of the City of Chaska Police Department.

3.8 WORKWEEK: The workweek shall average forty (40) hours, making a normal work year of 2,080 hours.

3.9 DEPARTMENT HEAD: The Chief

3.10 SENIORITY: Length of continuous service with the employer.

3.11 SCHEDULED SHIFT: A 8-hour consecutive work period including rest breaks and a lunch break.

3.12 LUNCH BREAK: A paid thirty (30) minute period during the scheduled/normal shift.

3.13 REST BREAK: Two fifteen (15) minute periods during the scheduled hours of a normal shift.

3.14 BASE PAY RATE: The Supervisors monthly base wage exclusive of longevity pay, differential pay, or any other special allowance.

ARTICLE 4 – EMPLOYER SECURITY

The UNION agrees that during the life of this AGREEMENT it will not cause, encourage, participate in or support any strike, a slow-down, or other interruption of or interference with the normal functions of the EMPLOYER.

ARTICLE 5 – EMPLOYER AUTHORITY

5.1 The EMPLOYER retains the sole right to operate and manage all manpower, facilities, and equipment in accordance with applicable laws and regulations of appropriate authorities.

5.2 Any term and condition of employment not specifically established or modified by this AGREEMENT shall remain solely within the discretion of the EMPLOYER to modify, establish, or eliminate.

ARTICLE 6 – UNION SECURITY

6.1 The UNION may designate employees from the bargaining unit to act as representative(s) and shall inform the EMPLOYER in writing of such choice and changes in the position of representative(s). The representative(s) shall receive overtime, at

time and a half, when attending contract negotiation meetings when off-duty, and when they will meet their overall scheduled hours for that week.

6.2 The EMPLOYER shall allow the use of internal e-mail and telephone for posting UNION notices and announcements that are non-partisan and anti-inflammatory communications.

6.3 The UNION agrees to indemnify and hold the EMPLOYER harmless against any and all claims, suits, orders, or judgments brought or issued against the EMPLOYER as a result of any action taken or not taken by the EMPLOYER under the provisions of this Article.

6.4 The EMPLOYER shall deduct from the wages of SUPERVISORS who authorize such a deduction in writing, an amount necessary to cover monthly UNION DUES. Such monies shall be remitted as directed by the UNION.

ARTICLE 7 – EMPLOYEE RIGHTS – GRIEVANCE PROCEDURE

7.1 DEFINITION OF A GRIEVANCE
A grievance is defined as a dispute or disagreement as to the interpretation or application of the specific terms and conditions of this agreement.

7.2 UNION REPRESENTATIVES
The EMPLOYER will recognize REPRESENTATIVES designated by the union as the grievance representatives of the bargaining unit having the duties and responsibilities established by this ARTICLE. The UNION shall notify the EMPLOYER in writing of the names of such UNION REPRESENTATIVES and of their successors when so designated, as provided by 6.1 of this AGREEMENT.

7.3 PROCESSING OF A GRIEVANCE
It is recognized and accepted by the UNION and the EMPLOYER that the processing o grievances as hereinafter provided is limited by the job duties and responsibilities of the SUPERVISORS and shall, therefore, be accomplished during normal working hours only when consistent with such SUPERVISOR duties and responsibilities. The aggrieved SUPERVISOR and UNION REPRESENTATIVE shall be allowed a reasonable amount of time without loss in pay when a grievance is investigated and presented to the EMPLOYER during normal working hours provided that the SUPERVISOR and a UNION REPRESENTATIVE have notified and received the approval of the designated EMPLOYER PREPRSENTATIVE who had determined that such absence is reasonable and would not be detrimental to the work of the EMPLOYER.

7.4 PROCEDURE
Grievances, as defined by Article 7.1, shall be resolved in conformance with the following procedure:

Step 1. A SUPERVISOR claiming a violation concerning the interpretation or application of this AGREEMENT shall, within twenty-one (21) calendar days after such alleged violation has occurred, present such grievance to the EMPLOYER. An EMPLOYER designated representative will discuss and give an answer to such Step 1 grievance within ten (10) calendar days after receipt. A grievance not resolved in Step 1 and appealed to Step 2 shall be placed in writing setting forth the nature of the grievance, the facts on which it is based, the provision or provisions of the AGREEMENT allegedly violated, and the remedy requested and shall be appealed to Step 2 within ten (10) calendar days after the EMPLOYER designated representative's final answer in Step 1. Any grievance not appealed in writing to Step 2 by the UNION within ten (10) calendar days will be considered waived.

Step 2. If appealed, the written grievance shall be presented by the UNION and discussed with the EMPLOYER designated Step 2 representative. The EMPLOYER designated representative shall give the UNION the EMPLOYER'S Step 2 answer in writing with ten (10) calendar days after receipt of such Step 2 grievance. A grievance not resolved in Step 2 may be appealed to Step 3 within ten (10) calendar days following the EMPLOYER designated representative's final Step 2 answer. Any grievance not appealed in writing to Stp 3 by the UNION within ten (10) calendar days shall be considered waived.

Step 3. If appealed, the written grievance shall be presented by the UNION and discussed with the EMPLOYER designated Step 3 representative. The EMPLOYER designated representative shall give the UNION the EMPLOYERS answer in writing within ten (10) calendar days after receipt of such Step 3 grievance. A grievance not resolved in Step 3 may be appealed to Step 4 with ten (10) calendar days following the EMPLOYER designated representative final answer in Step 3. Any grievance not appealed in writing to Step 4 by the UNION within ten (10) calendar days shall be considered waived.

Step 3a. If a grievance is not resolved at Step 3 of the grievance procedure, the parties, by mutual agreement, may submit the matter to mediation with the Bureau of Mediation Services. Submitting the grievance to mediation preserves timelines for Step 4 of the grievance procedure. Any grievance not appealed in writing to Step 4 by the UNION within ten (10) calendar days of mediation shall be considered waived.

Step 4. A grievance unresolved in Stp 3 or Step 3a and appealed to Step 4 by the UNION shall be submitted to arbitration subject to the provisions of the Public Employment Labor Relations Act of 1971, as amended. The selection of an arbitrator shall be made in accordance with the "Rules Governing the Arbitration of Grievances," as established by the Bureau of Mediation Services.

7.5 ARBITRATOR'S AUTHORITY

A. The arbitrator shall have no right to amend, modify, nullify, ignore, add to, or subtract from the terms and conditions of this AGREEMENT. The arbitrator shall consider and decide only the specific issue(s) submitted in writing by the EMPLOYER and the UNION and shall have no authority to make a decision on any other issue not so submitted.

B. The arbitrator shall be without power to make decisions contrary to, or inconsistent with, or modifying or varying in any way the application of laws, rules, or regulations having the force and effect of law. The arbitrator's decision shall be submitted in writing within thirty (30) days following the close of the hearing or the submission of briefs by the parties, whichever be later unless the parties agree to an extension. The decision shall be binding on both the EMPLOYER and the UNION and shall be based solely on the arbitrator's interpretation or application of the express terms of this AGREEMENT and to the facts of the grievance presented.

C. The fees and expenses for the arbitrator's services and proceedings shall be borne equally by the EMPLOYER and the UNION provided that each party shall be responsible for compensating its own representatives and witnesses. If either party desires a verbatim record of the proceedings it may cause such a record to be made, providing it pays for the record. If both parties desire a verbatim record of the proceedings the cost shall be shared equally.

7.6 WAIVER

If a grievance is not presented within the time limits set forth it shall be considered "waived". If a grievance is not appealed to the next step within the specified time limit or any agreed extension thereof, it shall be considered settled based on the EMPLOYER'S last answer. If the EMPLOYER does not answer a grievance or an appeal thereof within the specified time limits, the UNION may elect to treat the grievance to the next step. The time limit n each step may be extended by mutual agreement of the EMPLOYER and the UNION in each step.

7.7 CHOICE OF REMEDY

If, as a result of the written EMPLOYER response in Step 3, the grievance remains unresolved, and if the grievance involves the suspension, demotion, or discharge of an employee who has completed the required probationary period, the grievance may be appealed either to Step 4 of Article VII or a procedure such as Civil Service, Veteran's Preference, or Fair Employment. If appealed to any procedure other than Step 4 of Article VII, the grievance is not subject to the arbitration procedure as provided in Step 4 of Article VII. The aggrieved employee shall indicate in writing which procedure is to be utilized – Step 4 of Article VII or another appeal procedure – and shall sign a

statement to the effect that the choice of any other hearing precludes the aggrieved employee from making a subsequent appeal through Step 4 of Article. VII.

ARTICLE 8 – SAVINGS CLAUSE

This AGREEMENT is subject to the laws of the United States, the State of Minnesota, and the City of Chaska. In the event, any provision of this AGREEMENT shall be held to be contrary to law by a court of competent jurisdiction from whose final judgment or decree no appeal has been taken within the time provided, such provisions shall be voided. All other provisions of this AGREEMENT shall continue in full force and effect. The voided provision may be renegotiated at the request of either party.

ARTICLE 9 – SENIORITY

9.1 Seniority will be determined by the SUPERVISOR'S length of continuous employment with the Police Department and posted in an appropriate location. Seniority rosters may be determined by the Chief based on time in grade and time within specific classifications. A reduction of the workforce will be accomplished on the basis of seniority. SUPERVISORS shall be recalled from layoff on the basis of seniority. A SUPERVISOR on layoff shall have an opportunity to return to work within two years of the time of his layoff before any new employee is hired.

9.2 Vacation periods shall be selected on the basis of seniority until March 15 of each calendar year. Requests of more senior employees must only be sought in the same assignment. An example of an assignment is patrol division, investigations, administration, etc. that could affect the specific scheduling of that assignment. Senior employees have a ten (10) daytime limit from the date of vacation request to respond back to the requesting peace officer. No response back after the ten (10) days automatically grants permission to that requesting officer.

9.3 Seniority shall prevail. Senior qualified SUPERVISORS shall have first preference on the job.

ARTICLE 10 - DISCIPLINE

10.1 The EMPLOYER will discipline SUPERVISORS for just cause only. Discipline will be in the form of:

a) Oral reprimand,
b) Written reprimand,
c) Suspension,
d) Demotion, or
e) Discharge

10.2 Suspension, demotions, and discharges will be in written form.

10.3 Written reprimands, notices of suspension, and notices of discharge which are to become part of a SUPERVISORS personnel file shall be read and acknowledged by signature of the peace officer. Peace Offers and the UNION will receive a copy of such reprimands and/or notices at the time of discipline. Supervisors shall also be notified of any document(s) which are added to or part of the peace officer's personnel file. In the event that a peace officer discovers that any such notice was placed in his/her personnel file without their knowledge, the formal grievance process may be applied based upon the time of discovery. Supervisors shall also be notified of any document removed from their personnel file.

10.4 Supervisors may examine their own individual personnel files at reasonable times under the direct supervision of the EMPLOYER.

10.5 Discharges will be preceded by a five (5) day suspension without pay.

10.6 Supervisors will not be questioned concerning an investigation of disciplinary action unless the supervisor has been given an opportunity to have a UNION representative present at such questioning, as defined in the Peace Officer Discipline Procedures Act – Minnesota State Statute 626.89. The EMPLOYER and UNION will coordinate to ensure the process moves in a timely manner.

10.7 Grievances relating to this Article shall be initiated by the UNION in Step 3 of the grievance procedure under Article VII.

ARTICLE 11 – CONSTITUTIONAL PROTECTION

Supervisors shall have the rights granted to all citizens by the United States and Minnesota State Constitutions.

ARTICLE 12 – OVERTIME

12.1 Supervisors will be compensated at one and one-half times the supervisor's regular base pay rate for hours worked more than 80 hours in a pay period. Changes of shifts do not qualify a supervisor for overtime under this Article. All continuous assigned work by a supervisor after fourteen (14) hours is double time.

12.2 Overtime hours worked shall be paid either in the form of salary during the pay period in which they are earned or as compensatory time off. The final determination of the form of payment shall be the City's responsibility. Determination of salary or comp will be determined on a case-by-case basis. A maximum of eighty (80) hours of compensatory time may be carried over from year to year. Approval must be granted by the Chief in advance of compensatory time off. A supervisor may cash out their compensatory time throughout the year. Any compensatory overage for the year will automatically be paid out on the last pay period of each year.

12.3 Overtime will be distributed as equally as practicable.

12.4 Overtime refused by supervisors will for records purposes be considered as unpaid overtime worked.

12.5 For the purpose of computing overtime compensation overtime hours worked shall not be pyramided, compounded, or paid twice for the same hours worked.

12.6 Overtime will be calculated to the nearest fifteen (15) minutes.

ARTICLE 13 – COURT TIME

13.1 A supervisor who is required to appear in court during his scheduled off-duty time shall receive a minimum of three (3) hours pay at one and one-half times the supervisors base pay rate or (3) hours minimum compensatory time at (1-1/2) times the supervisors base pay rate at the supervisor's discretion. An extension or early report to a regularly scheduled shift for a court appearance does not qualify the employee for the three (3) hour minimum.

13.2 A supervisor who is scheduled for court during his/her off-duty time shall check the Carver County Attorney's website after 4:30 pm the day before confirming if their Court case is still listed. If the supervisor is not canceled by email, phone, or on the website before 4:30 pm the business day prior, a supervisor shall receive two (2) hours of pay at the regular base rate. An extension or early report to a regularly scheduled shift for Court appearance does not qualify the supervisor for the two (2) hour minimum.

13.3 A supervisor formerly employed by the Chaska Police DEPARTMENT shall be paid their last earned hourly wage for any court time performed.

13.4 In the event a supervisor is subpoenaed to testify in private party litigation in a capacity other than that of an expert witness regarding an incident that has occurred within the scope of employment for the City of Chaska involving facts which the supervisor came to know while on duty as a supervisor, then the supervisor shall receive court time pay from the employer in accordance with the requirements as outlined in Article XIV. The supervisor shall not be required to take vacation, PPL, or compensatory time if the appearance occurs during their work shift.

ARTICLE 14 – CALL-BACK TIME

A supervisor who is called to duty during his/her scheduled off-duty time shall receive a minimum of three (3) hours pay at one and one-half times the supervisor's base pay rate. An extension or early report to a regularly scheduled shift for duty does not qualify the supervisor for the three (3) hour minimum.

ARTICLE 15 – VACATIONS

15.1 Vacation is earned and granted according to the following schedule:

Year's of Service Hours earned per month

Start 0 through 5 years	6.67 hours (80 hours annual)
6 through 10 years	10 hours (120 hours annual)
11 years	10.67 hours (144 hours annual)
12 years	11.33 hours (152 hours annual)
13 years	13 hours (160 hours annual)
14 years	14 hours (168 hours annual)
15 years	14.67 hours (176 hours annual)
20 years	16.67 hours (200 hours annual

15.2 A supervisor may not accumulate vacation leave in an amount greater than one and one-half (1.5) times the amount that the supervisor earns in one year without the employer's written approval.

15.3 All existing supervisors are eligible to choose to be on the Paid Personal Leave (PPL) plan on an annual basis. Once this decision has been made, the supervisor may not choose to go back on the vacation/sick time program.

PPL is earned and granted according to the following schedule:

Years of Service	**Annual Accrued Personal Leave/ Hours Per Month**
Start through completion of year 5	18 days (144 hours) 12 hours
Year 6 through completion of year 10	22 days (176 hours) 14.66 hours
Year 11	23 days (184 hours) 15.33 hours
Year 12	24 days (192 hours) 16 hours
Year 13	25 days (200 hours) 16.66 hours
Year 14	26 days (208 hours) 17.33 hours
Year 15	27 days (216 hours) 18 hours
Year 16	28 days (224 hours) 18.66 hours
Year 17	29 days (232 hours) 19.33 hours
Year 18	30 days (240 hours) 20 hours
Year 19 or more	31 days (248 hours) 20.66 hours

Supervisors choosing to convert over to the Personal Leave Plan shall have their existing banked vacation leave converted to personal leave on a 1:1 basis, and will be able to keep their sick leave bank available for future use, as defined by the Personal Leave Plan and Salary Continuation Plan. Supervisors at no time may accumulate personal leave to exceed two times the annual rate at which the supervisor earns personal leave.

15.4 Personal Leave Plan and vacation periods shall be selected based on seniority until March 15 of each calendar year as stated in Article 9.3.

15.5 PPL time may be used in increments of less than 30 minutes.

15.6 Supervisors under the PPL and/or vacation plan shall receive two floating holidays (24 hours) and observe the same holidays as stated in Article 18.1.

15.7 For the purpose of PPL, the definition of good standing means that the supervisor must give a minimum of two-week (10 working days) notice unless a mutual agreement has been made between the supervisor and Employer to end employment earlier or the supervisor ends employment due to an injury/disability.

15.8 A supervisor under the PPL plan requesting leave under FMLA may use up to fifteen (15) days of accrued sick leave in accordance with FMLA Article 30. This is supplemental to the benefits in the Personal Leave Plan and Salary Continuation Plan.

All supervisors under the PPL plan will be governed by the City of Chaska Personal Leave Plan and Salary Continuation Plan unless stated in this agreement. All supervisors continuing under the vacation/sick time program will continue to be governed by the language of this Labor Agreement unless stated in this agreement.

Annually, supervisors may designate 50 PPL hours to fund their Deferred Compensation Plan, Health Savings Account, or paycheck.

ARTICLE 16 – SICK LEAVE

16.1 A supervisor who has not elected the PPL plan shall accumulate one day of sick leave per month.

16.2 The Employer shall follow Minnesota State Statue 181.9413.

16.3 Sick leave usage shall not be subject to approval and verification by the Employer.

ARTICLE 17 – HOLIDAYS

17.1 The EMPLOYER shall recognize ten (10) paid holidays plus two (2) floating holidays as specified below:

New Year's Day	January 1
Martin Luther King Day	Third Monday of January
President's Day	Third Monday of February (Lincoln's and Washington's Birthday)
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	First Monday in September

Veteran's Day	November 11
Thanksgiving Day	Fourth Thursday in November
Day after Thanksgiving	Friday after Thanksgiving Day
Christmas Day	December 25

In the event that the State of Minnesota adopts any new holidays, the city agrees to recognize and adopt said holiday as an observed holiday.

Supervisors beginning employment after January 1st of a calendar year shall receive holiday leave beginning on the first full pay period in which they are employed. Such Supervisors shall receive an advance of holiday leave based on their assigned work shift length multiplied by the number of holidays left through December 31 of the calendar year in which they were first employed.

17.2 Holiday leave shall be advanced to the supervisor on January 1st of each calendar year. The holiday leave shall be placed in a holiday leave bank and calculated based on the Supervisors assigned work shift and/or assignment.
Supervisors will receive a holiday bank of hours on January 1 of each calendar year based on the peace officers assigned work shift and/or assignment:

- A Supervisor on an eight (8) hour work shift shall receive 96 hours of holiday leave.

17.3 For Supervisors on a fixed Monday to Friday schedule, if any of the holidays falls on a Sunday, then Monday is the official holiday, and if any falls on a Saturday, then Friday will be the official holiday.

17.4 A Supervisor who works on any of the abovementioned holidays (as listed in 18.1) shall be compensated at the rate of double time for all hours worked on the actual holiday. This time may be taken as pay or compensatory time at the peace officer's discretion at their hourly rate.

17.5 A maximum of sixteen (16) hours of Holiday time may be carried over from year to year. Any Holiday overage will be automatically paid out on the last pay date in December of each calendar year at the peace officers' hourly rate at straight time.

17.6 A supervisor on sick leave before or after a holiday may be required to have a certificate stating the nature of illness before holiday pay will be granted; however, a supervisor may use a vacation day. PPL hours, or compensatory time and still receive holiday pay.

17.7 A supervisor who works any hours on Christmas Eve or New Year's Eve shall receive four(4) hours of vacation/PPL time toward their vacation/PPPL bank. A supervisor on a fixed Monday to Friday schedule that leaves on an early close time shall not receive this additional benefit but will not be charged vacation or compensatory time for the time

period that City Hall is closed. A supervisor who is on a regular or scheduled day off is not eligible for this benefit.

ARTICLE 18 – BEREAVEMENT LEAVE

Supervisors shall receive up to three (3) days for bereavement, memorials, family gathering or to attend funerals of members of the supervisor's immediate family defined as spouse, children, step-children, mother, father, brother, step-brother, sister, step-sister, grandchildren, grandparent, and step-grandparents of either the supervisor or supervisor's spouse. Up to two days shall be granted for the death of great-grandparents, aunt, uncle, nieces, nephews, or if the employee is asked to perform the service of a pallbearer. Funeral leave will be deducted from a separate city-held bank and not the supervisor's accrued leave time. Any additional time or other funerals is to be off from vacation time, PPL, compensatory time, or without pay. Funeral leave is per occurrence.

ARTICLE 19 – HEALTH AND WELFARE

19.1 Establishment of VEBA: Employer shall make available a VEBA Plan and Trust described in summary and attached hereto as VEBA Attachment #1, to all qualified bargaining unit members who exercise their option to enroll in the high deductible health insurance program offered in Section 4, Subdivision 2 of this Article. Employer and supervisor's assent to and ratify the appointment of the trustee and plan administrator for the VEBA plan Trust identified in VEBA Attachment #1. It is intended that this arrangement constitutes a voluntary supervisor's beneficiary association under Section 501 (c) (9) of the Internal Revenue Code. This plan year will begin on January 1 and end on December 31 of each year.

19.2 Benefits provided through the VEBA Employer shall provide the following welfare benefit arrangement through the VEBA Plan. A health reimbursement arrangement for active employees.

19.3 Payment of Administrative Fee: Administrative fees allocable to individual accounts of active supervisors who are active participants in the VEBA, and HSA Plans shall be paid by the employer. Administrative fees allocable to the individual accounts of former supervisors shall be paid from the VEBA account and deducted from the total accrued amount of dollars that are allocated to that former supervisor in the VEBA account. If the VEBA Plan is terminated, or if Employee Contributions cease by agreement between the parties, administrative fees shall be paid from the VEBA account.

19.4 Employer Contributions to the Health Reimbursement Arrangement for Active Supervisors:

Subd. 1 Contribution to the Active Employees' Plan:

Employer will make an annual contribution to individual accounts under the health reimbursement arrangement for qualifying bargaining unit members in accordance with the following schedule:

> $1,248 for each qualified supervisor who elects single coverage under the group health plan described in Subdivision 2; and
>
> $2,496 for each qualified supervisor who elects Employee + Spouse, Employee +Child(ren), or Family coverage under the group health plan described in Subdivision 2.

The contribution will be made in thirds, with the first contribution on January 1st, the second contribution on May 1st, and the third contribution on September 1st. The employer will contribute $416 to the individual account each period for those supervisors who elect single coverage, and $832 to the individual account for each period for those supervisors who elect family coverage under the group health plan described in Subdivision 2. Dollars in individual accounts shall not be eligible to use until they have been accrued.

If a qualified bargaining unit member enters the VEBA Plan as a participant on a date after the first day of the VEBA Plan Year, the Employer shall prorate the amount of the Employer Contribution to reflect the late entry. This prorated share of employer contribution shall be based on the number of months remaining in the plan year. Any supervisor entering the VEBA plan on a date other than the first day of that month shall receive the entire supervisor contribution amount for the month in which they enter (i.e. a supervisor entering the VEBA plan anytime during the month of April would receive 9/12 of the total year supervisor contribution toward the individual's VEBA account).

All employer contributions on behalf of a VEBA Plan participant shall cease on the date the participant is no longer covered under the high deductible health plan in Subdivision 2 below, or on a date that the individual is no longer employed by the City of Chaska.

Subd. 2 High Deductible Health Plan/VEBA:

The employer shall make available a high deductible health plan described in summary and attached hereto as Insurance Attachment #1, to all qualified bargaining unit members who elect to participate in said plan. With respect to qualifying bargaining unit members, in the 2021 benefit year, the Employer shall contribute an amount not to exceed $932.00 toward the monthly premium cost for single group health coverage, and $1,306.00 toward the monthly premium cost for Employee + Spouse, Employee + Child(ren), or Family group health coverage. The employer's contribution toward the employee's premium shall be negotiated on an annual basis. The employer contribution toward the employee's premium shall be negotiated on an annual basis.

Current supervisors choosing the High Deductible Medical plan will be able to utilize dollars in the individual VEBA account to pay for those medical services that are currently covered under the high deductible health plan described in summary and attached hereto as Insurance Attachment #1. After an individual leaves employment with the City of Chaska, that individual will be eligible to utilize the dollars accumulated in the individual's VEBA account to pay for any medical services covered under IRS Code 213 (d).

19.5 HSA Qualified High Deductible Plans:

The employer shall also make available the group health plan described in summary and attached hereto as Insurance Attachment #2, to supervisors who do not elect coverage provided for under the provision of the high deductible health plan described in Section 4, Subdivision 2. With respect to all qualified bargaining unit members. The employer for 2021 shall contribute an amount not to exceed $1,036.00 toward the monthly premium cost for single group health coverage, and $1514.00 toward the monthly premium cost for Employee + Spouse, Employee + Child(ren), or Family group health coverage. The employer's contribution toward the employee's premium shall be negotiated on an annual basis.

Qualified bargaining unit members who elect coverage under this Section 5 shall not be entitled to receive Employer Contributions to the VEBA Plan. If a participant changes coverage from a high deductible plan in Section 4, Subdivision 2, to the alternative group health plan in Section 5 above, all contributions on behalf of a VEBA Plan participant shall cease.

As one of the health insurance plans being offered, the employer is making available a Health Savings Account (HSA). Those choosing an HSA will receive the employer contribution laid out in section 20.5, with the employer covering the administrative costs of the HSA accounts.

All supervisors employed in a position in the appropriate unit shall, at a minimum, be

enrolled in single coverage in one of the group health plans provided for under the provisions of this Article. In the event, an eligible supervisor does not make a choice of plan coverage the Employer shall enroll the supervisor in the CORE medical benefit of the plan, which is the single-coverage VEBA high deductible medical plan.

19.6 EMPLOYER will permit permanently disabled or retired supervisors over 50 and under 67 years of age to participate in the City's group health, VEBA, and welfare insurance plan provided the supervisor pays 100% of the monthly premium for the plan chosen.

19.7 In addition to the City's contribution toward life insurance, supervisors shall be permitted to utilize a portion of cafeteria plan to purchase additional life insurance. (Long-term Disability, and long-term care insurance.)

19.9 The employer's 2023 contribution toward the employee's premium shall be negotiated on an annual basis.

19.10 Survivors Health Insurance Coverage: Shall be defined under Minnesota State Statute 299A.465 in the event of the death or injury of an active supervisor.

19.11 The Minnesota Health Care Savings Plan (HCSP) is an employer-sponsored program that allows Chaska Peace Officers to save money, tax-free, to use upon separation of employment to pay for eligible health care expenses, HCSP is a tax-free account, which means contribution, and eligible reimbursements are not reportable on state or federal income tax returns.

This program will enrich the City of Chaska's benefit plan. The City of Chaska appreciates peace officers, who through long-term service and dedication, contribute to making the city a successful and positive service provider. In recognition, the City acknowledges the following plan.

All eligible Chaska Supervisors under this contract shall participate in the Minnesota Post Employment Health Care Savings Plan established under Minnesota State Statutes, section 352.98 (Minn. Supp. 2001) and as outlined in the Minnesota State Retirement System's Trust and Plan Documents. All funds collected by the employer on the behalf of the Supervisor will be deposited into the peace officer's post-employment health care savings plan account.

On January 1, the Supervisor and Employer contribution shall be per pay period based on the Supervisor's monthly base wage and shall be placed into the Supervisor's HCSP account.

4 Years of service or more: Employer contribution 1%

Supervisor contribution 3.5%

Supervisors with Paid Personal Leave (PPL) and/or Vacation shall contribute 50% of their accrued leave upon separation of employment/service into their health care savings plan account but no more than 200 hours, at their final hourly rate. This program is designed for all Supervisors of the Chaska Police DEPARTMENT that are members of LELS #447.

ARTICLE 20 – SEVERANCE PAY

20.1 For all supervisors the City will pay 100% of the accumulated unused vacation or PPL time. However, a supervisor who voluntarily terminates his employment must notify the City at least two weeks ahead of the termination date or the supervisor will forfeit the above severance pay. No severance pay will be given to any supervisor who is discharged from his position because of disciplinary reasons by the EMPLOYER.

20.2 Before the last day of service, a supervisor in good standing will receive a letter from the Department stating that he/she left employment in good standing and stated length of service to the City with such letter signed by the Chief.

ARTICLE 21 – JURY DUTY

In the event a supervisor is called for jury duty, he will receive his full salary while on jury duty if his jury fee, less expenses, is turned over to the City Treasurer.

ARTICLE 22 – TRAINING

22.1 TRAINING: Is defined as continuing education for Peace Officers, which is necessary to promote and ensure professional competence.

22.2 A supervisor that is on a regularly scheduled day off who attends mandatory training shall be paid for group breaks during the training and is eligible to submit per diem requests for meals not provided during the training. Mandatory training is annual mandated specific training by the Minnesota Post Board or training determined to be mandatory that is assigned by the Chief of Police, a Chaska Police Supervisor, or a Department Training Instructor.

22.3 NON-MANDATORY: A supervisor who attends training while off duty that is not mandatory but satisfies POST requirements or enhances or benefits job performance

and training have been approved by a department head or his/her designee shall be compensated at straight time up to FLSA limits. A supervisor who attends training on a regular scheduled off shall be paid for group breaks taken during the training and are eligible to submit per diem requests for meals not provided during the training.

22.4 FTO COMPENSATION: A supervisor shall be compensated two (2) hours of additional pay at the supervisor's current hourly rate for each shift or partial shift the supervisor is assigned to work as a Field Training Officer with a trainee, Community Service Officer or a CERT member. This includes initial orientation, firearms, Taser, use of force training, or evaluation of the trainee.

22.5 SCHEDULED SHIFT REPLACEMENT: A supervisor who attends a training that has been approved by a department head or his/her designee that replaces their regular scheduled normal shift, shall be compensated as stated in Article XII (HOURS OF WORK – normal shift) and shall be paid for group breaks taken during the training.

22.6 MEALS When a peace officer must stay overnight while traveling on official city business to attend professional training or conferences that are authorized and shall receive a per diem allowance for meals and incidental expenses at the daily federal Per Diem Rate authorized for the travel location. This rate can be found at: http://www.gsa.gov/portal/content/142071. Expenses exceeding authorized per diem allowances are the personal responsibility of the peace officer.

On the first and last day of travel, supervisors will be reimbursed using the GSA partial day rate for the first/last day of travel. If a full day of training occurs on a travel day, the total meals and incidentals per diem rate are reimbursed.

When meals are included as part of a conference, seminar, or registration fee, or provided by or paid for by third parties, supervisors must deduct those meals from the per diem reimbursement. Lodging is not included in per diems. Supervisors should make arrangements at the preferred conference hotels when possible. Supervisors may use a p-card for lodging or can request reimbursement with an original receipt.When supervisors are traveling on official city business to attend professional training or conferences and an overnight stay is not required, supervisors are still authorized and shall receive per diem allowance for the particular meals required for the day though they are not authorized incidental expenses. The City of Chaska will pay a modified per diem rate per meal based on the Federal Per Diem rate authorized at the travel location and in accordance with their meal (after looking up per diem rate for location, the meal rate breakdown can be found at http://www.gsa.gov/portaljcontent/101518.

Peace officers on official city business attending professional training or conferences that do not require an overnight stay shall receive a per diem allowance for the following meals (if not provided during the training or conference):

- Breakfast (if travel to the conference/training and/or the conference/training occurs prior to 7:00 a.m.)
- Lunch (if travel or the conference/training occurs during lunch)
- Dinner (if travel from the conference and/or the conference/training occurs after 6:00 p.m.)
  - The City of Chaska will pay the per diem rate per meal based on the Federal Per Diem authorized for the travel location. The meal rate breakdown can be found at http://www.gsa.gov/portal/content/101518. The per diem will be included in the employee's gross income and the appropriate taxes will be withheld if overnight travel is not required.

Expense claims must be submitted to finance within 15 business days of return from training/conference. Although it is no longer necessary to submit receipts for meals or incidental expenses, all other claimed expenses must have the appropriate documentation (lodging/Airfare receipts, mileage reimbursement log or map, etc.)

22.7 TRAVEL DEFINITION: Travel time will be the actual time taken to travel by vehicle from the Chaska Police DEPARTMENT to the training location and back to the Chaska Police Department.

Supervisors attending any training will receive straight time for travel time as defined by 22.7. Supervisors will not receive travel time for any training occurring in the City of Chaska and/or training within 15 minutes of the Chaska Police Department. Supervisors attending scheduled shift replacement training will not be paid for travel time unless it exceeds the time of their normal work shift.

AIR TRAVEL: Any air travel time shall include travel time to and from the airport from the Chaska Police Department; terminal and airtime; and travel time to the end destination. A supervisor shall receive straight time for air travel time. Air travel scheduled on a supervisor's normal work shift shall be considered a normal work shift.

ARTICLE 23 – NEGOTIATION MEETINGS

The UNION representative(s), or an authorized alternate, upon approval of the Department Head, may be absent from duty to attend union meetings.

For de minimis union activities, or when a union meeting is called, members shall be allowed to attend such meetings with Department Head approval, subject to calls, where police services are required and shall not count against the supervisor's break time.

ARTICLE 24 – UNIFORM/EQUIPMENT/TECHNOLOGY COMPENSATION

24.1 The City of Chaska will provide required approved initial issue uniforms and equipment items to all new supervisors.

24.2 The City of Chaska will provide for all badges (including maintenance and repair), patches (police, badge, shoulder and name, nameplates, insignia, and/or stitching) on uniforms. All departmental purchased items will remain the property of the City of Chaska. Upon termination, separation, or retirement from employment, all initially issued items and departmental patches, insignia, and nameplated shall be returned to the City of Chaska upon request.

24.3 The City of Chaska will provide supervisors with mandated OC spray, reflective vests, reflective rain jackets, and two (2) body-worn camera mounts, which will remain the property of the City of Chaska

24.4 Uniform items, clothing, and equipment worn while performing police duties (including footwear, watches, and eyewear) which are damaged or contaminated rendering it unwearable in the line of duty by an individual that is being arrested, detained, fought with, chased or that is seized as evidence shall be replaced in whole by the City of Chaska. Any restitution will be paid to the City of Chaska. A uniform item that is damaged as the result of wear and tear or while performing normal duties (other than described above) will be replaced at the cost to the supervisor from his/her uniform compensation.

24.5 The City of Chaska will annually provide each supervisor with an annual uniform and equipment compensation of **$1,602.68 for 2022, and $1,650.76for 2023**.

24.6 It is recognized by the employer and the supervisor that supervisors have unique uniforms, and equipment needs above the beyond those of patrol officers. To address these additional requirements, the employer will provide the supervisors with additional annual uniform and equipment compensation of **$456.29 for 2022, and $469.97 for 2023.** This supervisor allowance will be paid in the same check as the normal uniform

allowance. For newly appointed supervisors, this amount will be available upon successful completion of their initial probation period. The allowance shall be prorated for the remaining months in the calendar year after probation ended.

24.7 Supervisors shall receive a monthly technology allowance of $50, intended to offset the use of personal data/internet plans for work purposes, for a total of $600 annually.

24.8. Uniform/equipment, and supervisor's uniform, shall be paid on or about January 1st of each year. All uniform/equipment and supervisor's uniform allowance once paid is considered compensation and shall not be returned to the City of Chaska.

24.9 The City of Chaska shall provide the amount as defined in Minnesota State Statute 299A.38 for the purchase of body armor for peace officers, every five years, or from when the body armor is initially purchased. The body armor shall be of a certain quality and description as the (Level 3A) body armor. An internal vest carrier shall be included with the purchase of body armor. Should the state funds for the purchase of law enforcement body armor be canceled at any time, this agreement shall be re-opened. If agreement is not reached within 30 days of re-opening, either party may refer the issue to binding arbitration.

24.10 All supervisors are required to purchase their own duty, backup, or off-duty weapon(s).

ARTICLE 25 – CELL PHONE

25.1 A supervisor will be provided a cell phone and usage plan by the City of Chaska

ARTICLE 26 – FALSE ARREST

The EMPLOYER shall provide False Arrest Insurance.

ARTICLE 27 – INJURED ON DUTY

27.1 Supervisors on an eight (8) hour work shift injured on duty will receive full pay for a maximum of 720 hours while unable to work due to such injury. Supplementary payments from the City will be deducted from a supervisor's accumulated sick leave, PPL, or vacation only after the 720 hours have expired per injury.

27.2 Any compensation payable to the supervisor under Workers Compensation insurance will be reported to the EMPLOYER. The EMPLOYER shall make supplementary

payments to the supervisor to make up the difference between workmen's compensation and his normal rate of pay. Supplementary payments from the City will be deducted from a supervisor's accumulated sick leave or vacation only after 720 hours of working days have expired. The employer shall pay a supplementary payment for the first 720 hours.

27.3 A supervisor who claims an absence from work due to an injury sustained on the job shall provide, if requested by the EMPLOYER, a statement from the supervisor's attending physician as to the nature of the injury.

27.4 An supervisor who claims an absence from work due to an injury sustained on the job is subject to an examination to be made on behalf of and paid for by, the EMPLOYER. The examination shall be conducted by a person competent to perform such and will be designated by the EMPLOYER.

27.5 As provided for through the City of Chaska Worker's Compensation policy coverage, treatment for exposure and/or acquiring a communicable disease directly related to work-related activities shall be considered a workplace injury subject to all the benefits and employee requirements listed above in this section of the agreement.

ARTICLE 28 – PEACE OFFICER LICENSE

The EMPLOYER will assume the cost of the peace officer license required by the State of Minnesota. Each supervisor is responsible for maintaining and renewing the license.

ARTICLE 29 – PROBATIONARY PERIOD

A probationary period for SUPERVISORS shall be one year from the date of promotion. If the Chief of Police does not feel a supervisor meets the expectations of a SUPERVISOR'S role during probation, they shall be assigned back immediately as a Sergeant. This does not affect situations where a supervisor could be terminated from employment for just cause.

ARTICLE 30 – FAMILY AND MEDICAL LEAVE ACT (FMLA)

A supervisor requesting leave under the (FMLA) shall at the supervisor's discretion, be able to take leave from an of the accrued leave time banks provided for by this contract, however, a supervisor will be limited to fifteen (15) days of sick leave use per occurrence.

Accrued leave time shall include PPL, Vacation, Sick Leave, Compensatory Time, and Floating Holiday Time.

The supervisor may request a leave of absence without pay, pursuant to the (FMLA), as well.

ARTICLE 31 – COMPENSATION

31.1. WAGES

Specialty pay for the Lieutenants position will be 7.5% more than the Sergeant base rate. The breakdown for each contract year is shown below:

2022: Monthly base wage is $8,920.66 (Sergeant base rate) + 7.5% = $9,589.71

The Employer and Union have agreed upon the following list of comparable agencies for wages: (Brooklyn Center, Champlin, Cottage Grove, Elk River, Golden Valley, Hastings, Hopkins, Inver Grove Heights, Minnetonka, Maplewood, New Brighton, Oakdale, Prior Lake, Savage, Shakopee, South St. Paul, Stillwater, and West St. Paul). The Employer and Union agree to obtain contract adjustments percentages for 2023 year from the aforementioned agencies. An analysis will be completed to find the percent average for those contract increases. If it is found that a 3% increase was lower than the average percent calculated in 2023, the difference will be applied to the base wages in (section 31.1) effective December 31, 2023, at 11:59 pm. The Employer and Union will negotiate wage increases for the subsequent contract.

31.2. LONGEVITY PAY

In addition to their base pay, supervisors will receive the following additional percent of their monthly pay:

Longevity Pay	
After 4 years of service	3%
After 8 years of service	5%
After 12 years of service	7.5%
After 16 years of service	9.5%
After 20 years of service	11%

31.3 SUPERVISOR MONTHLY ON CALL

A supervisor shall receive 6 hours of straight time compensation based on the supervisor's normal hourly rate for each month. The time may be taken as pay or

compensatory time at the supervisor's discretion. A monthly on-call supervisor is expected to answer their phone or return a call as soon as possible or practical during the month they are the primary on-call supervisor. No other geographical or other restrictions shall apply.

31.4 SUPERVISOR ON-CALL INVESTIGATOR/DETECTIVE ON CALL

Supervisors assigned to investigator/detective "on-call" rotation shall receive 18 hours of straight time pay or compensatory time per week (7 days) or (2.5) hours per day for each day (except Saturday) on "on-call" at the supervisor's current hourly rate at the supervisor's discretion. Each day of "on-call" shall consist of 24 hours of "on-call" service.

31.5 Supervisors working investigative/detective "on-call" may have another peace officer substitute and fulfill their supervisor/detective "on-call" obligations. The substituting peace officer shall be the only one that shall receive supervisor/detective "on-call" compensation.

31.6 A Supervisor working "on-call" on a Saturday shall receive 3 hours of straight time pay or compensatory time at the peace officer's current hourly rate at the supervisor discretion.

31.7 A supervisor working investigative/detective "on-call" on a designated holiday as stated in 18.1 shall receive eight hours of straight time pay or compensatory time at the supervisor's discretion.

31.8 If a supervisor/detective "on-call" supervisor is requested to return to duty, that supervisor shall be compensated in accordance with article XV.

ARTICLE 32 – WORK OUT ON DUTY

32.1 The Chaska Police Department will implement a work schedule that provides time for a supervisor to exercise during their scheduled shifts, subject to the needs of the police department. The scheduled exercise time may be suspended for one or more supervisors, with just cause. A supervisor may utilize work out on duty as long as the supervisor works 50% of their assigned schedule shift.

ARTICLE 33 – DURATION

This AGREEMENT shall be effective as of the 1st of January 2022 and shall remain in full force and effect until the 31st day of December 2023 and shall automatically renew from year to year unless either party gives notice of their desire to modify or amend this agreement.

IN WITNESS THEREOF, the parties hereto have extended this AGREEMENT on this _____ day of _____, _____(year).

FOR (THE CITY OF CHASKA)

_____
City Administrator **Matt Podhradsky**

Date _____

FOR (The UNION)

_____
Union Steward **Lieutenant Tony Kjorstad**

Date _____

_____
LELS Business Agent

LABOR AGREEMENT

between

THE CITY OF CHASKA

and

MINNESOTA TEAMSTERS PUBLIC AND LAW ENFORCEMENT EMPLOYEES UNION, LOCAL #320

REPRESENTING

PUBLIC WORKS/WATER SEWER/ & ELECTRIC DEPARTMENT

January 1, 2022 – December 31, 2023

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LABOR AGREEMENT

BETWEEN

THE CITY OF CHASKA

AND

MINNESOTA TEAMSTERS PUBLIC AND

LAW ENFORCEMENT EMPLOYEES UNION, LOCAL #320

ARTICLE 1. PURPOSE OF AGREEMENT

This Agreement is entered into as of January 1, 2022, between the City of Chaska, hereinafter called the Employer, and the Minnesota Teamsters Public and Law Enforcement Employees Union, Local No. 320, hereinafter called the Union.

It is the intent of this Agreement is to:

1.1 Establish certain hours, wages, and other conditions of employment;
1.2 Establish procedures for the resolution of disputes concerning this Agreement's interpretation and/or application; and
1.3 Specify the full and complete understanding of the parties; and
1.4 Place in written form the parties' agreement upon terms and conditions of employment for the duration of this Agreement.

The Employer and the Union, through this Agreement, shall continue their dedication to the highest quality of public service. Both parties recognize this Agreement as a pledge of this dedication.

ARTICLE 2. RECOGNITION

2.1 The Employer recognizes the Union as the exclusive representative, under Minnesota Statutes, Section 179-67, Subdivision 2, and Section 179.71, Subdivision 3, for all personnel in the following job classifications:

Journeyman Line Worker	Line Worker Foreman
Apprentice Line Worker, WS Maint	Lead Line Worker
Maint. Worker I,II, III WS/PW/BM	Mechanic Foreman
Mechanic	Building Maintenance Foreman
Parks Foreman	Water Sewer Foreman
Streets Foreman	Greenskeeper I,II,III
Lead Parks, Streets, Water/Sewer	Line Superintendent

2.2 In the event the Employer and the Union are unable to agree to the inclusion or exclusion of a new or modified job, class, the issue shall be submitted to the Bureau of Mediation Services for determination.

ARTICLE 3. DEFINITIONS

3.1 UNION: The Minnesota Teamsters Public and Law Enforcement Employees Union, Local No 320.

3.2 UNION MEMBER: A member of the Minnesota Teamsters Public and Law Enforcement Employees Union, Local No 320.

3.3 EMPLOYEE: A member of the exclusively recognized bargaining unit.

3.4 EMPLOYER: The City of Chaska

3.5 BASE PAY RATE: The employees' hourly pay rate exclusive of longevity or any other special allowances.

3.6 SENIORITY: Length of full time employment with the employer in a job classificationcovered by this agreement.

3.7 COMPENSATORY TIME: Time off the employees' regularly scheduled work schedule is equal in time to overtime worked.

3.8 SEVERANCE PAY: Payment made to an employee upon honorable termination of employment.

ARTICLE 4. UNION SECURITY

In recognition of the Union as the exclusive representative, the Employer shall:

4.1 Deduct from each payroll period an amount sufficient to provide the payment of dues established by the Union from the wages of all employees authorizing in writing such deduction: and

4.2 Remit such deduction to the appropriate designated officer of the Union.

4.3 The Union may designate certain employees from the bargaining unit to act as steward(s) and shall inform the Employer in writing of such choice.

4.4 The Union agrees to indemnify and hold the Employer harmless against any and all claims, suits, orders, or judgments brought or issued against the City as a result of any action taken by the City under the provisions of this Article.

4.5 Upon receipt of a properly executed voluntary authorization card from an employee, the City will deduct from the employees' salary such amount as the employee authorizes to pay National Teamsters Drive.

ARTICLE 5. EMPLOYER AUTHORITY

The Union recognizes the prerogative of the Employer to operate and manage its affairs in all respects in accordance with existing and future laws and regulations of appropriate authorities including municipality personnel policies and work rules. The prerogatives and authority which the Employer has not officially abridged, delegated, or modified by the Agreement are retained by the Employer.

ARTICLE 6. EMPLOYER RIGHTS – GRIEVANCE PROCEDURES

6.1 DEFINITION OF A GRIEVANCE: A grievance is a dispute or disagreement as to the interpretation or application of the specific terms and conditions of this Agreement.

6.2 UNION REPRESENTATIVES: The Employer will recognize representatives designated by the Union, as the grievance representatives of the bargaining unit having the duties and responsibilities established by this Article. The Union shall notify the Employer in writing of the names of such Union representatives and of their successors when so designated.

6.3 PROCESSING OF A GRIEVANCE: It is recognized and accepted by the Union and the Employer that the processing of grievances as hereinafter provided is limited by the job duties and responsibilities of the employees and shall therefore be accomplished during normal working hours only when consistent with such employee duties and responsibilities. The aggrieved employee and the Union Representative shall be allowed a reasonable amount of time without loss of pay when a grievance is investigated and presented to the Employer during normal working hours provided the Employee and the Union Representative have notified and received the approval of the designated supervisor who has determined that such absence is reasonable and would not be detrimental to the work programs of the Employer.

6.4 PROCEDURE: Grievances, as defined by Section6.1 shall be resolved in conformance with the following procedure:

Step 1. An employee claiming a violation concerning the interpretation or application of this Agreement shall, within twenty-one (21) calendar days after such alleged violation has occurred, present such grievance to the Employee's supervisor as designated by the Employer. The Employer designated representative will discuss and give an answer to such Step 1 grievance within ten (10) calendar days after receipt. A grievance not resolved in Step 1 and appealed to Step 2 shall be placed in writing setting forth the nature of the grievance, the facts on which it is based, the provision or provisions of the Agreement allegedly violated, and the remedy requested and shall be appealed to Step 2 within ten (10) calendar days after the Employer designated representatives final answer in Step 1. Any grievance not appealed in writing to Step 2 by the Union within ten (10) calendar days shall be considered waived.

Step 2. If appealed, the written grievance shall be presented by the Union and discussed with the Employer designated Step 2 representative. The Employer designated representative shall give the Union the Employer's Step 1 answer in writing within ten (10) calendar days after receipt of such Step 2 grievance. A grievance not resolved in Step 2 may be appealed to Step 3 within ten (10) calendar days following the Employer designated representatives final Step 2 answer. Any grievance not appealed in writing to Step 3 by the Union within ten(10) calendar days shall be considered waived.

Step 3. If appealed, the written grievance shall be presented by the Union and discussed with the Employer designated Step 3 representative. The Employer designated representative shall give the Union the Employers answer in writing within ten (10) calendar days after receipt of such Step 3 grievance. A grievance not resolved in Step 3 may be appealed to Step 4 within ten (10) calendar days following the Employer designated representative's final answer in Step 3. Any grievance not appealed in writing to Step 4 by the Union within ten (10) calendar days shall be considered waived.

Step 4. A grievance unresolved in Step 3 will be appealed to mediation through the Bureau of Mediation Services.

Step 5. A grievance unresolved in Mediation and appealed to Step 5 shall be submitted to arbitration subject to the provisions of the Public Employment Labor Relations Act of 1971, amended. The selection of an arbitrator shall be made in accordance with the "Rules Governing the Arbitration of Grievances" as established by the Public Employment Relations Board.

6.5 ARBITRATOR'S AUTHORITY

A. The arbitrator shall have no right to amend, modify, nullify, ignore, add to, or subtract from the terms and conditions of this Agreement. The arbitrator shall consider and decide on the specific issue(s) submitted in writing by the Employer and the Union and shall have no authority to make a decision on any other issue not so submitted.

B. The arbitrator shall be without power to make decisions contrary to, or inconsistent with, or modifying or varying in any way the application of laws, rules, or regulations having the force and effect of law. The arbitrator's decision shall be submitted in writing within thirty (30) days following the close of the hearing or the submission of briefs by the parties, whichever be later unless the parties agree to an extension. The decision shall be binding on both the Employer and the Union and shall be based solely on the arbitrator's interpretation or application of the express terms of this Agreement and to the facts of the grievance presented.

C. The fees and expenses for the arbitrator's services and proceedings shall be borne equally by the Employer and the Union provided that each party shall be responsible for compensating its own representatives and witnesses. If either party desires a verbatim record of the proceedings it may cause such a record to be made, providing it pays for the record. If both parties desire a verbatim record of the proceedings the cost shall be shared equally.

6.6 WAIVER

If a grievance is not presented within the time limits set forth it shall be considered "waived". If a grievance is not appealed to the next step within the specified time limit or any agreed extension thereof, it shall be considered settled on the basis of the Employers last answer. If the Employer does not answer a grievance or an appeal thereof within the specified time limits, the Union may elect to treat the grievance as denied at that step and immediately appeal the grievance to the Next Step. The time limit in each Step may be extended by mutual agreement of the Employer and the Union.

ARTICLE 7. SAVINGS CLAUSE

This Agreement is subject to the laws of the United States, the State of Minnesota, and the City of Chaska. In the event, any provision of this Agreement shall be held to be contrary to law by a court of competent jurisdiction from whose final judgment or decree no appeal has been taken within the time provided, such provisions shall be voided. All other provisions of this Agreement shall continue in full force and effect. The voided provision may be renegotiated at the written request of either party.

ARTICLE 8. WORK SCHEDULES

8.1 The sole authority in work schedules is the Employer. The normal workday for the employees shall be wight (8) hours. The normal workweek shall be forty (40) hours Monday through Friday.

8.2 Service to the public may require the establishment of regular shifts for some employees on a daily, weekly, seasonal, or annual basis other than the normal 7:00 a.m – 3:00 p.m. day. The Employer will give advance notice to the employees affected by the establishment of workdays different from the employees' normal eight (8) hour workday.

8.3 In the event that work is required because of unusual circumstances such as (but not limited to) fire, flood, snow, sleet, or breakdown of municipal equipment or facilities, no advance notice needs to be given. It is not required that an employee working other than the normal workday be scheduled to work more than eight (8) hours. However, each employee has an obligation to work overtime on callbacks, if requested, unless unusual circumstances prevent him/her from so working.

8.4 Service to the public may require the establishment of regular work weeks that schedule work on Saturdays and/or Sundays.

8.5 When the lead worker foreman or line superintendent position is temporarily vacant for a period of 24 days, the Department Head will fill the temporary vacancy with the senior-most qualified. This is a 30-day position that can be extended for an additional 30 days. If the position is still vacant it will be filled temporarily by the City of Chaska hiring process. If the Employee returns to the City of Chaska they will resume their duties and the individual who was hired to fill the vacancy will be back to their previous position without a loss in seniority.

ARTICLE 9. OVERTIME PAY

9.1 Hours worked at the Employer's authorization in excess of the daily scheduled hours or more than forty (40) hours within a seven (7) day period will be compensated for at one and one-half (1 ½) times the employees regular base pay rate.

9.2 Overtime will be distributed as equally as practicable.

9.3 Overtime refused by employees will, for record purposes under Article 9.2, be considered as unpaid overtime worked.

9.4 For the purpose of computing overtime compensation, overtime hours worked shall not be pyramided, compounded, or paid twice for the same hours worked.

9.5 Overtime hours worked shall be paid either in the form of salary during the pay period in which they are earned or as compensatory time off. The final determination of the form of payment shall be the City's responsibility. Determination of salary or comp time will be determined on a case-by-case basis. When compensatory time off is selected as the payment form by the City, it shall be limited to a maximum carryover as of the last payday in November of each calendar year of eighty (80) hours per employee.

9.6 Overtime. When an employee is called back to work overtime on a holiday or Sunday, the employee will be compensated double time. Although this provision would not apply if the employee is scheduled to work on Sunday or if the employee does not work in excess of 40 hours during the week. Sunday/Holiday pay at double time would include snow plowing. When asked to work through lunch, the employee will be compensated with one (1) hour of overtime. In no case shall an employee be denied a rest break during the day to get food or other needs.

9.7 All work double-time after fourteen (14) hours.

ARTICLE 10. CALL BACK

An employee called in for work at a time other than their normal scheduled shift will be compensated for a minimum of three (3) hours pay at one and one-half (1 ½) times the employee's regular base pay rate. When called back between 9 p.m. and 7 a.m. Monday through Saturday, the employee will receive two (2x) times the employee's regular base pay rate outside of the scheduled eight (8) hour shift. Snow plowing is excluded from the Monday – Saturday 2x rate and will be paid out at 1.5x.

ARTICLE 11. ON-CALL AND STANDBY AVAILABILITY PAY

11.1 Utility employees required to be available for duty on a stand-by basis will be paid six (6) hours pay for a Saturday and seven (7) hours pay for a Sunday, and one (1) hour per day for each regular weekday M-F. A utility employee assigned to be on call on one of the 10 designated holidays will be paid an additional eight (8) hours of pay at regular pay. The employee may choose this on call pay as compensatory time.

11.2 Meter Reconnect Pay. The City's standby policy would be amended to provide that on the monthly designated utility cut-off day rather than receiving a minimum two-hour call-out pay, employees would receive pay equal to the top lineman pay per meter reconnect. This amount will increase by the negotiated COLA percentage each year.

11.3 Plowing Standby Pay. The Employer shall provide all employees that are on a regular plowing rotation 12 hours of compensatory time per month, for November through March. This Compensatory Time accrued through this Plowing Standby Pay would need to be utilized by November 1 of each year, and could not be carried forward into a subsequent plowing season (November-March). Any employee-only plowing a portion of the season shall receive a pro-rata share of compensatory time under this provision based on the amount of time they actually plowed (i.e. employee on call for plowing one week out of 4 in a given month would receive seven (7) hours of the Plowing Standby Pay). Golf Maintenance and mechanic employees who receive snow plow comp, will be paid out snow plow comp at their higher, snow plow rate.

11.4 Any Employee who receives City business phone calls get one-half (1/2) hour pay at one and one-half (1 ½) times their regular rate of pay. After 9 p.m. an employee shall receive one (1) hour of pay at two times (2) times their regular rate of pay. Holidays and Sundays shall be compensated at one hour (1) hour pay at two (2) times their regular rate of pay.

ARTICLE 12. LEGAL DEFENSE

12.1 Employees involved in litigation because of negligence, ignorance of laws, non-observance of laws, or as a result of employee judgmental decision, may not receive legal defense by the municipality.

12.2 Any employee who is charged with a traffic violation, ordinance violation, or criminal offense arising from acts performed within the scope of their employment, when such act is performed in good faith and under the direct order of their supervisor, shall be reimbursed for reasonable attorney's fees and court costs actually incurred by such employee in defending against such charge.

ARTICLE 13. RIGHT OF SUBCONTRACT

Nothing in this Agreement shall prohibit or restrict the right of the Employer from subcontracting work performed by employees covered by this Agreement, except that no bargaining unit employee shall suffer loss of full-time employment and benefits, nor

shall suffer lay off while any contracted or seasonal employees are performing work normally done by bargaining unit members.

ARTICLE 14. DISCIPLINE

14.1 The Employer will discipline employees for just cause only. Discipline will be in the form of:

a. Oral reprimand;
b. Written reprimand;
c. Suspension;
d. Demotion; or
e. Discharge.

14.2 Suspensions, demotions, and discharges will be in written form.

14.3 Written reprimands, notices of suspension, and notices of discharge which are to become part of an employee's personnel file shall be read and acknowledged by signature of the employee. Employees and the Union will receive a copy of such reprimands and/or notices.

14.4 Employees may examine their own individual personnel files at reasonable times under the direct supervision of the Employer.

14.5 Employee will not be questioned concerning an investigation of disciplinary action unless the employee has been given an opportunity to have a Union representative present at such questioning. The EMPLOYER and UNION will coordinate to ensure the process moves in a timely manner.

14.6 Grievances relating to this Article shall be initiated by the Union in Step 3 of the grievance procedure under Article 6.

ARTICLE 15. SENIORITY

Seniority will be the determining criterion for transfers, promotions, and layoffs, only when all other qualifications factors are equal.

15.1 Work Location Seniority shall be defined as length of full time employment with the EMPLOYER in a job classification covered by this AGREEMENT. In the event an EMPLOYEE transfers from one job classification to another, on their own free will, covered by this AGREEMENT the EMPLOYEE shall have their seniority within the new job classification start over within that job classification. If the move from one job classification to another is due to elimination of the position by the EMPLOYER or by the EMPLOYER and not at the request of the EMPLOYEE the

EMPLOYEE shall maintain their current seniority in the new job classification. This new language shall be in effect from 01-01-2022 and going forward.

15.2 Work Staff Reduction or Layoff- In the event the EMPLOYER reduces the work staff in a job classification covered by this AGREEMENT the reductions shall be made by seniority within the job classification. In the event of a layoff the employee on layoff shall have an opportunity to return to work within 3 years of the time of his/her layoff before any new employee is hired. Recalls shall be handled by seniority.

15.3 Loss of Seniority. An employee shall lose seniority upon separation from employment. Employees who are re-employed following separation shall be considered a new employee and shall receive no seniority credit for previous employment. An EMPLOYEE on layoff and recalled to the position previously held by the EMPLOYEE shall have his/her seniority restored.

ARTICLE 16. PROBATIONARY PERIODS

16.1 All newly hired or rehired employees will serve a twelve (12) months probationary period.

16.2 All employees will serve a twelve (12) months probationary period in any job classification in which the employee has not served a probationary period.

16.3 At any time during the probationary period a newly hired or rehired employee may be terminated at the sole discretion of the Employer.

16.4 At any time during the probationary period a promotion or reassigned employee may be demoted or reassigned to the employee's previous position at the sole discretion of the Employer.

ARTICLE 17. SAFETY

The Employer and Union agree to jointly promote safe and healthful working conditions, to cooperate in safety matters, and to encourage employees to work in a safe manner.

ARTICLE 18. JOB POSTING

18.1 The Employer and the Union agree that permanent job vacancies the designated bargaining unit shall be filled based on the concept of promotion from within provided that applicants:

a. have the necessary qualifications to meet the standards of the job vacancy, and
b. have the ability to perform the duties and responsibilities of the job vacancy.
c. In the event more than one applicant meets the requirements of this Article, seniority will apply as stated in Article 15.

18.2 Employees filling a higher job class based on the provision of this Article shall be subject to the conditions of Article 16, Probationary Periods.

18.3 The Employer has the right to a final decision in the selection of employees to fill posted jobs based on qualifications, abilities, and experience.

18.4 Job vacancies within the designated bargaining unit will be posted for five (5) working days so that the members of the bargaining unit can be considered for such vacancies.

ARTICLE 19. VACATIONS

19.1 Vacation is earned and granted according to the following schedule:

YEARS OF SERVICE	HOURS EARNED PER MONTH
Start 0 through 5 years	6.67 hours (80 hours annual)
6 through 10 years	10 hours (120 hours annual)
11 years	12 hours (144 hours annual)
12 years	12.67 hours (152 hours annual)
13 years	13.33 hours (160 hours annual)
14 years	14 hours (168 hours annual)
15 years	14.67 hours (176 hours annual)
20 years	16.67 hours (200 hours annual)

19.2 Vacation time shall be earned but not available for use until an employee has completed the six (6) month probationary period unless unforeseen circumstances occur and are approved by the Superintendent of that employee's department to take time off.

19.3 An employee may not accumulate vacation leave in an amount greater than one and one-half (1 ½) times the amount which the employee earns in one year's time without the Employer's written approval.

19.4 An employee must work at least one-half (1/2) of a month before earning vacation for that month for crediting of vacation.

19.5 Form No. L-03, EMPLOYEE LEAVE APPLICATION, will be completed and approved by the Department Head for vacation leave or compensatory time off before such time off is taken.

19.6 The floating holiday allowed under Article 22, Section 23.2 shall be counted as part of Section 19.3 above.

ARTICLE 20. SICK LEAVE/PERSONAL LEAVE

20.1 An employee shall accumulate one (1) day of sick leave per month. Follow MN State Statue 181.9413.

20.2 All-new employees shall automatically be enrolled in the City's Personal Leave program, as opposed to the sick and vacation leave program described in this contract. All existing employees shall have the option to enroll in the Personal Leave program on an annual basis. If an employee chooses to enroll in the Personal Leave program, they will not be able to convert back to the sick and vacation leave program in the future. All employees choosing to convert over to the Personal Leave program shall have their existing banked vacation leave converted to personal leave on a 1:1 basis, and will be able to keep their sick leave bank available for future use, as defined by the existing Personal Leave policy. The personal leave schedule is as follows:

Years of Service	**Annual Accrued Personal Leave Hours per Month**
Start through completion of year 5	18 days (144 hours) 12 hours
Year 6 through completion of year 10	22 days (176 hours) 14.66 hours
Year 11	23 days (184 hours) 15.33 hours
Year 12	24 days (192 hours) 16 hours
Year 13	25 days (200 hours) 16.66 hours
Year 14	26 days (208 hours) 17.33 hours
Year 15	27 days (216 hours) 18 hours
Year 16	28 days (224 hours) 18.66 hours
Year 17	29 days (232 hours) 19.33 hours
Year 18	30 days (240 hours) 20 hours
Year 19 or more	31 days (248 hours) 20.66 hours

As per the Personnel Leave Policy, the cash-out limit for personal leave annual is 50 hours.

Personal leave accrual is based off of the original hire date into a union position. If a break service occurs, you would start over at year zero upon rehire according the chart above.

ARTICLE 21. SEVERANCE PAY

For employees hired prior to January 1, 1986, the Employer shall pay one-third (1/3) of the accumulated sick leave (up to a maximum of thirty, (30) days upon severance of employment) from the City after five (5) years of continuous employment. In addition, for all employees, the City will pay 100% of the accumulated unused vacation time. However, an employee who voluntarily terminates his/her employment must notify the City at least two (2) weeks ahead of the termination date or the employee will forfeit the above severance pay. No severance pay will be given to any employee who is discharged from their position because of disciplinary reasons by the Employer.

ARTICLE 22. FUNERAL LEAVE

22.1 An employee shall receive up to three (3) days per occurrence to attend funerals of members of the employees immediate family defined as spouse, children, stepchildren, mother, father, brother, stepbrother, sister, step-sister, grandchildren, grandparent, and step-grandparents of either the employes or employees spouse. Up to two (2), days shall be granted for the death of great grandparents, aunt, uncle, nieces, and nephews or if the employee is asked to perform the service of a pallbearer. Any additional time or other funerals is to be taken off from vacation time, compensatory time, or without pay. Employees under the Personal Leave Plan shall follow by the Funeral Leave section of that policy, which does not require use of vacation, compensatory or other leave for Funeral Leave should the leave fall under the criteria of that policy.

ARTICLE 23. HOLIDAYS

23.1 There shall be twelve (12) paid holidays.

23.2 The following are observed holidays:

New Years Day	January 1
Martin Luther King Jr. Birthday	3rd Monday in January
President's Day	2nd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	1st Monday in September
Veterans Day	November 11

Thanksgiving Day	4th Thursday in November
Day after Thanksgiving	Friday after Thanksgiving Day
Christmas Day	December 25

Two (2) Floating Holidays

In the event the State of Minnesota adopts any new holidays, the city agrees to recognize and adopt said holiday as an observed holiday.

23.3 If any of the aforementioned holidays fall on a Sunday, then Monday is the official holiday, and if any on a Saturday, then Friday will be the official holiday.

23.4 Employees shall be paid or given equal time off when it is necessary to schedule an employee to work on one (1) of the official holidays. The pay or time off shall be the discretion of the Department Head or the City Administrator. Should the Administrator or Department Head choose to pay the employee, the employee shall be compensated at the rate of double time for all hours worked on the holiday, except as modified by Article 11.

23.5 An employee on sick leave before or after a holiday may be required to have a certificate stating the nature of illness before holiday pay will be granted, however, an employee may use a vacation day and still receive holiday pay.

ARTICLE 24. INJURY ON DUTY

24.1 Employees injured on duty will receive full pay for a maximum of sixty (60) working days while unable to work due to such injury.

24.2 Any compensation payable to the employee under Workers Compensation Insurance will be reported to the Employer. The Employer shall make supplementary payments to the employee to make up the difference between Workers Compensation and their normal rate of pay. Supplementary payments from the City will be deducted from the employee's accumulated sick leave or vacation leave only after four hundred and eighty (480) working hours. Supplementary payments for the first four hundred and eighty working hours shall be paid by the employer.

24.3 Any employee who claims an absence from work due to an injury sustained on the job shall provide, if requested by the Employer, a statement from the employee attending physician as to the nature of the injury.

24.4 Any employee who claims an absence from work due to an injury sustained on the job is subject to an examination to be made on behalf of and paid for by the employee by a person competent to perform the same and is designated by the employer.

ARTICLE 25. HEALTH AND WELFARE

25.1 Establishment of VEBA: Employer shall make available a VEBA Plan and Trust described in summary and attached hereto as VEBA attachment #1, to all qualified bargaining unit members who exercise their option to enroll in the high deductible health insurance program offered in Section 4, Subdivision 2 of this Article. Employer and employees assent to and ratify the appointment of the trustee and plan administrator for the VEBA plan and Trust identified in VEBA attachment #1. It is intended that this arrangement constitutes a voluntary employees beneficiary association under Section 501 (c) (9) of the internal revenue code. This plan year will begin on January 1 and end on December 31 of each year.

25.2 Benefits provided through the VEBA: Employer shall provide the following welfare benefit arrangement through the VEBA plan. A health reimbursement arrangement for active employees.

25.3 Payment of Administrative Fee: Administrative fees allocable to individual accounts of active employees who are active participants in the VEBA and HSA Plans should be paid by the employer. Administrative fees allocable to the individual accounts of former employees shall be paid from the VEBA account, and deducted from the total accrued amount of dollars that are allocated to that former employee in the VEBA account. If the VEBA Plan is terminated, or if employee contributions cease by agreement between the parties administrative fees shall be paid from the VEBA account.

25.4 Employer Contributions to the Health Reimbursement Arrangement For Active Employees:

Subd.1 Contribution to the Active Employees Plan: Employer will make an annual contribution to individual accounts under the health reimbursement arrangement for qualifying bargaining unit members in accordance with the following schedule:

> $1,248 for each qualified employee who elects single coverage under the group health plan described in Subdivision 2; and
>
> $2,496 for each qualified employee who elects Employee + Spouse, Employee + Child(ren), or Family coverage under the group health plan described in Subdivision 2.

The contribution will be made in thirds, with the first contribution on January 1st, the second contribution on May 1st, and the third contribution on September 1st,

or the first business day thereafter. The employer will contribute $416.00 to the individual account each period for those employees who elect single coverage, and $932.00 to the individual account each period for those employees who elect family coverage under the group health plan described in Subdivision 2. Dollars in individual accounts shall not be eligible to use until they have been accrued.

If a qualified bargaining unit member enters the VEBA Plan as a participant on a date after the first day of the VEBA Plan Year, the Employer shall prorate the amount of the Employer contribution to reflect the late entry. This prorated share of employer contribution shall be based on the number of months remaining in the plan year. Any employee entering the VEBA plan on a date other than the first day of that month shall receive the entire employee contribution amount for the month in which they enter (i.e. an employee entering the VEBA plan anytime during the month of April would receive 9/12 of the total year employee contribution toward the individuals VEBA account).

All employer contributions on behalf of a VEBA Plan participant shall cease on the date the participant is no longer covered under the high deductible health plan in Subdivision 2 below. Or on a date that the individual no longer is employed by the City of Chaska.

Subd.2 High Deductible Health Plan: Employer shall make available a high deductible health plan described in summary and attached hereto as Insurance Attachment #1, to all qualified bargaining unit members who elect to participate in said plan. With respect to qualifying bargaining unit members, in the 2021 benefit year, the Employer shall contribute an amount not to exceed $932.00 toward the monthly premium cost for single group health coverage, and $1,306.00 toward the monthly premium cost for Employee + Spouse, Employee + Child(ren), or Family group health coverage. The Employer's contribution toward the employee's premium shall be negotiated on an annual basis.

Current employees choosing the High Deductible Medical Plan will be able to utilize dollars in the individual VEBA count to pay for those medical services that are currently covered under the high deductible health plan described in summary and attached hereto as Insurance Attachment #1. After an individual leaves employment with the City of Chaska, that individual will be eligible to utilize the dollars accumulated in the individual's VEBA account to pay for any medical services covered under IRS Code 213(d).

25.5 Alternate Group Health Plan: Employer shall also make available the group health plan described in summary and attached hereto as Insurance Attachment #2, to employees who do not elect coverage provided for under the provision of the high deductible heal plan described in Section 4, Subdivision 2. With respect to

all qualified bargaining unit members, Employer for 2022 shall contribute an amount not to exceed $1,036.0 toward the monthly premium cost for single group health coverage, and $1,514.00 toward the monthly premium cost for Employee + Spouse, Employee + Child(ren), or Family group health coverage.

Qualified bargaining unit members who elect coverage under this Section 5 shall not be entitled to receive Employer Contributions to the VEBA Plan. If a participant changes coverage from a high deductible plan in Section 4, Subdivision 2, to the alternative group health plan in Section 5 above, all contributions on behalf of a VEBA Plan participant shall cease.

As one of the health insurance plans being offered, the Employer is making available a Health Saving Account (HSA). Those choosing an HSA will receive the Employer contribution laid out in Section 25.5 with the Employer covering the administrative costs of the HSA accounts.

All employees employed in a position in the appropriate unit shall, at a minimum, be enrolled in single coverage in one of the group health plans provided for under the provisions of this Article. In the event, an eligible employee does not make a choice of plan coverage the Employer shall enroll the employee in the CORE medical benefit of the plan, which is the single-coverage VEBA high deductible medical plan.

25.6 Employer will permit permanently disabled or retired employees over 50 and under 67 years of age to participate in the City's group health, VEBA, and welfare insurance plan provided the employee pays 100% of the monthly premium for the plan chosen.

25.7 In addition to the City's contribution toward life insurance, employees shall be permitted to utilize a portion of cafeteria plan to purchase additional life insurance. (Long-term disability, and long-term care insurance).

ARTICLE 26. UNIFORMS

26.1 The Employer shall provide all employees with $1029 annually for 2022 and $1060 annually for 2023 for uniforms and reasonable replacement thereof. For those employees requiring OSHA-mandated reflective shirts, the City will provide up to five shirts per employee, annually. The City will provide reflective OSHA-required jackets or sweatshirts. The Employer will provide the following uniform pieces to employees:

All employees:	Vests, Proper PPE Items, Rain Gear, Gloves per Department
Golf Course:	3 City logo polo shirts

Electric: These items will be FR and provided annually
6 Short Sleeve Shirts, 6 Long Sleeve Shirts, 1 Hooded Sweatshirt, and 6 Pants

The Employer shall pay for all City logo embroidering

26.2 In addition to Uniform Allowance, the Employer shall provide a reimbursement of $50 monthly for employees who purchase their own cell phone coverage and agree to utilize that cell phone for bother personal and work use. The cell phone shall be replaced at the Employer's expense if it is damaged in the course of their duties.

26.3 . Uniform allowance shall increase at the same percentage as the standard wage increase each contract year thereafter.

ARTICLE 27. JURY DUTY

In the event an employee is called for jury duty, they will receive their full salary while on jury duty, if his/her jury fee less expenses are turned over to the City Treasurer.

ARTICLE 28. NEGOTIATION MEETINGS

Only the steward may be absent from their duties to attend negotiation meetings, with prior approval of the Department Head, unless the Employer authorized an alternate.

ARTICLE 29. WORK RULES

The City Council, City Administrator, and the Department Heads will promulgate and make know a set of work rules which shall cover all City employees. A copy of these rules shall be forwarded to the Union. Said rules will be developed and applied in a reasonable, fair, and just manner.

ARTICLE 30. PART-TIME AND SEASON EMPLOYEES

30.1 Part-time and season employees shall not be covered by the holidays, vacations, health and welfare, sick leave, or severance pay provisions, as described above.

30.2 Season employees shall be given credit for the time worked when they return for the second summer.

30.3 Part-time employees shall move through the probationary period only on a pro-rated basis.

30.4 It will not be the City of Chaska's intent to permanently fill a full-time position with part-time employees.

ARTICLE 31. INCENTIVE PAY PROGRAM

31.1 The City has established a program to motivate members of the specified departments to seek higher education and certificates in their field. As a result of this implementation, employees will create an individual plan with their supervisor and work towards higher pay as they work through their plan as follows.

Licensing Incentive Program for Water/Sewer Department

Level	2022	2023
D	Min	Min.
C	$.24	$.25
B	$.48	$.50
A	$.72	$.75

The incentive pay will increase by the negotiated COLA percentage every year.

31.2 Existing Water & Sewer employees who obtain the license above would be entitled to incentive pay as associated with each license. If a license is lost or forfeited, the employee would lose incentive pay associated with the license. If a future employee were to lose or forfeit their water & sewer license that individual may be subject to demotion or reclassification.

Licensing Incentive Program for Public Works Deparatment, Parks, Streets, Mechanics, Golf

1 related to department = C

1 related to department = B

1 related to department = A

2 related to Public Works = C

2 related to Public Works = B

2 related to Public Works = A

31.3 Public Works employees must obtain the designated number of certifications per category as noted and keep all certifications current to be eligible for incentives. To receive incentive pay employees will need to have related certificates in their primary department as well as other certifications in different areas of Public Works. Employees will need 3 general certifications per box to move up unless the certifications have a different value put on them.

Mechanics will need 5 ASE certifications to move from level to level.

Park-Golf Certifications

- State certified tree inspector = C
- Toro certifications
- Extra turf certifications
- Playground inspector certification
- Pesticide applications license = C
- Low voltage labors certification
- Fertilizer certification
- Aquatic pesticide applicators license = B
- Power limited electric certification = A

Street Department Certificates

- Minn Dot Blacktop certification
- Minn Dot concrete certification
- MPCA level one certification
- Bucket truck certification
- Digger Derek truck certification
- Stormwater compliance certification = C
- Certified Stormwater manager = B

Mechanics

- Ability to DOT trucks and trailers = B
- ASE certifications
- Toro certifications
- Certified Public Fleet professional =B

General Public Work

- Budget classes
- Approved management classes
- Public Works certificate = B
- Wetlands certification

- Excel spreadsheet class
- Boiler class C license = B
- Building maintenance certification = B
- International society of arborists certification = A
- Certified Public Infrastructure Inspector = B
- Class A Driver's license

31.4 Existing Electric Department employees who obtain the listed certificates or licenses would be entitled to incentive pay as associated with each certificate or license. If a certificate or license expires or it's forfeited, the employee would lose incentive pay associated with that certificate or license. Employees will need 3 of the D-rated certificates to move up to C level incentive. The maximum an employee can earn in incentive pay is the equivalent of two (2) A-level certificates.

Certificates/Licenses:

- International Society of Arborists certification = A
- Power Limited Electric certification = B
- Rigging certificate = B
- Pesticide/Herbicide applicators license = C
- MMUA Stepping into leadership certificate = C
- MMUA Leadership Academy (2-2hour sessions)=C
- Microsoft Office Specialist certificate = C
- Class A/Tanker/Health Card = D

ARTICLE 32. DURATION

This Agreement shall be in effect as of the 1st of January, 2022 and shall remain in full force and effect until the 31st of December 2023.

IN WITNESS THEREOF, the parties hereto have executed this Agreement on this

_____day of _____, 2022.

FOR CITY OF CHASKA

FOR MINNESOTA TEAMSTERS PUBLIC &

LAW ENFORCEMENT EMPLOYEES UNION, LOCAL #320

City Manager

Business Agent

Union Steward

Union Steward

Union Steward

APPENDIX A

SALARY SCHEDULE FOR 2022 & 2023

2022 = 1.1% + 3% 2023 = 3%

WATER/SEWER	1/1/2022	1/1/2023
Apprentice WS	$24.75	$25.49
Maintenance I WS	$30.94	$31.87
Maintenance II WS	$35.35	$36.41
Maintenance III WS	$40.17	$41.38
Lead Worker Water Sewer	$42.58	$43.86
Water & Sewer Foreman	$47.01	$48.42
PUBLIC WORKS		
Maintenance I PW/BM	$29.60	$30.49
Greenskeeper I	$28.51	$29.37
Maintenance II PW/BM	$33.84	$34.86
Greenskeeper II	$30.36	$31.27
Maintenance III PW/BM	$38.45	$39.60
Greenskeeper III (PRIOR II)	$34.35	$35.38
Mechanic	$35.03	$36.08
Park Lead	$40.76	$41.98
Street Lead	$40.76	$41.98
Parks Foreman	$44.99	$46.34
Streets Foreman	$44.99	$46.34
Mechanic Foreman	$41.38	$42.62
Building Maintenance Foreman	$44.99	$46.34
ELECTRIC		
Apprentice Line Worker	$43.66	$44.97
Journeyman Line Worker	$50.07	$51.57
Lead Line Worker	$53.58	$55.19
Line Worker Foreman	$56.06	$57.74
Line Superintendent	$59.08	$60.85

A-1 When Mechanics and Greenskeeper positions are snow plowing they will make the base rate, including incentive pay, of the equivalent maintenance worker in Public Works.

A-2 Apprentice Line Worker will start at 70% of the listed Apprentice Line Worker wage rate and will receive 3.75% increases each six (6) months for forty-eight (48) months.

Apprentice WS will start at 80% of WS Maint I pay, and is only a 6 month position.

A-3 The City reserves the right to determine the number of employees in Maintenance Worker II, III positions and to establish the criteria dictating promotions from Maintenance Worker I and Equipment Operator.

A-4 Wages in Public Works and Water and Sewer are based off certain percentages from the Maint III pay (Maint 1 are 23% below, Maint II are 12% below, Lead workers are 6% higher and Foreman is 17% higher).

Wages in Electric are based off of Journeyman pay (Lead is 7% above, Foreman is 12% above and line Superintendent is 18% above).

A-5 Market for Public Works and Water Sewer is Anoka, Champlin, Chanhassen, Cottage Grove, Elk River, Golden Vally, Hasting, Hopkins, Inver Grove Heights, Maplewood, Minnetonka, New Brighton, Oakdale, Prior Lake, Savage, Shakopee, Shoreview, South St. Paul, Stillwater, and West St. Paul.

A-6 Electric Market is Xcel, MVEC, SPUC.

A-7 The employer and union agree to obtain contract adjustment percentages for 2022 year from the aformentiated agencies (see market agencies above). An analysis will be completed to find the percent average for those contract increases. If it is found that a 3% increase was lower than the average percent calculated in 2022, the difference will be applied to the base wages effective December 31st, 2022, at 11:59pm. The Employer and Union will negotiate wage increase for the subsequent contract.

A-8 The employer and union agree that if the union is interested at a later date in implementing a Healthcare savings plan for members, we will address it at the time of interest and discuss employer and employee contributions. If this occurs within a contract period, we will address in an MOU.

MEMORANDUM OF ARGREEMENT

This Memorandum of Agreement is entered into between the City of Chaska (hereafter "City) and Minnesota Teamsters Public Law Enforcement Employees Union, local #320. (hereafter "Union).

WHEREAS, the City and the Union are parties to a collective bargaining agreement negotiated pursuant to the Public Employment Labor Relations Act; and

WHEREAS, the parties recognize that it is beneficial to both the Union and the City that further conversations in regards to training, and safety protocols occur.

NOW, THEREFORE, the parties agree to the below:

City of Chaska and Union agree to further discussions regarding the Electric Departments incentive program once the new Department is in position and prepared to discuss this topic.

Also, City of Chaska and the Union the City agree to continue discussions throughout this contract on inclement weather situations in relation to employees performing routine work in the field during such times, to include excessive heat, cold, wind, lightning etc. to promote a safer working environment.

This Memorandum of Agreement constitutes the complete and total agreement between the parties regarding these matters.

IN WITNESS WHEREOF, the parties have caused the Memorandum of Agreement to be executed on the dates set forth by their respective signatures.

FOR (THE CITY 0F CHASKA)	FOR (MN TEAMSTERS)
_____	_____
City Administrator Matt Podhradsky	Union Steward Steve Munkelwitz
_____	_____
Date	Date
	_____
	Union Steward Selmer Olson
	_____

Date

_____

Union Steward Mike Engelen

_____

Teamsters Union Rep Chad Orgon

_____

Date

REQUEST FOR ACTION
CHASKA CITY COUNCIL
4/18/2022

Subject: Assessment Hearing for 2022 Downtown Street Reconstruction Project

Prepared By: Matt Clark, City Engineer

The City Council recently held a Public Improvement Hearing on this project to gather public input. The proposed 2022 Street Reconstruction Project continues Chaska's rehabilitation program in the downtown area. The specific streets included in this year's project are noted on the attached Exhibit. The work includes complete replacement/reconstruction of sanitary sewer, watermain, utility services, concrete curb, street and sidewalk, trail, boulevard restoration, and installation of new storm sewer.

In line with all downtown projects and state statute, the City's practice for establishing assessments with projects that have occurred in downtown is to conduct a special benefit consultation. The consultation is performed by an independent appraisal group that analyzes the benefit to the individual properties based on the proposed improvements within the overall project area. The amount that is determined in the consultation is what the City uses to establish each property's assessment amount. Since starting the Downtown Street Reconstruction program, the analysis has consistently concluded the same benefit amount for residential properties since the program began a decade ago.

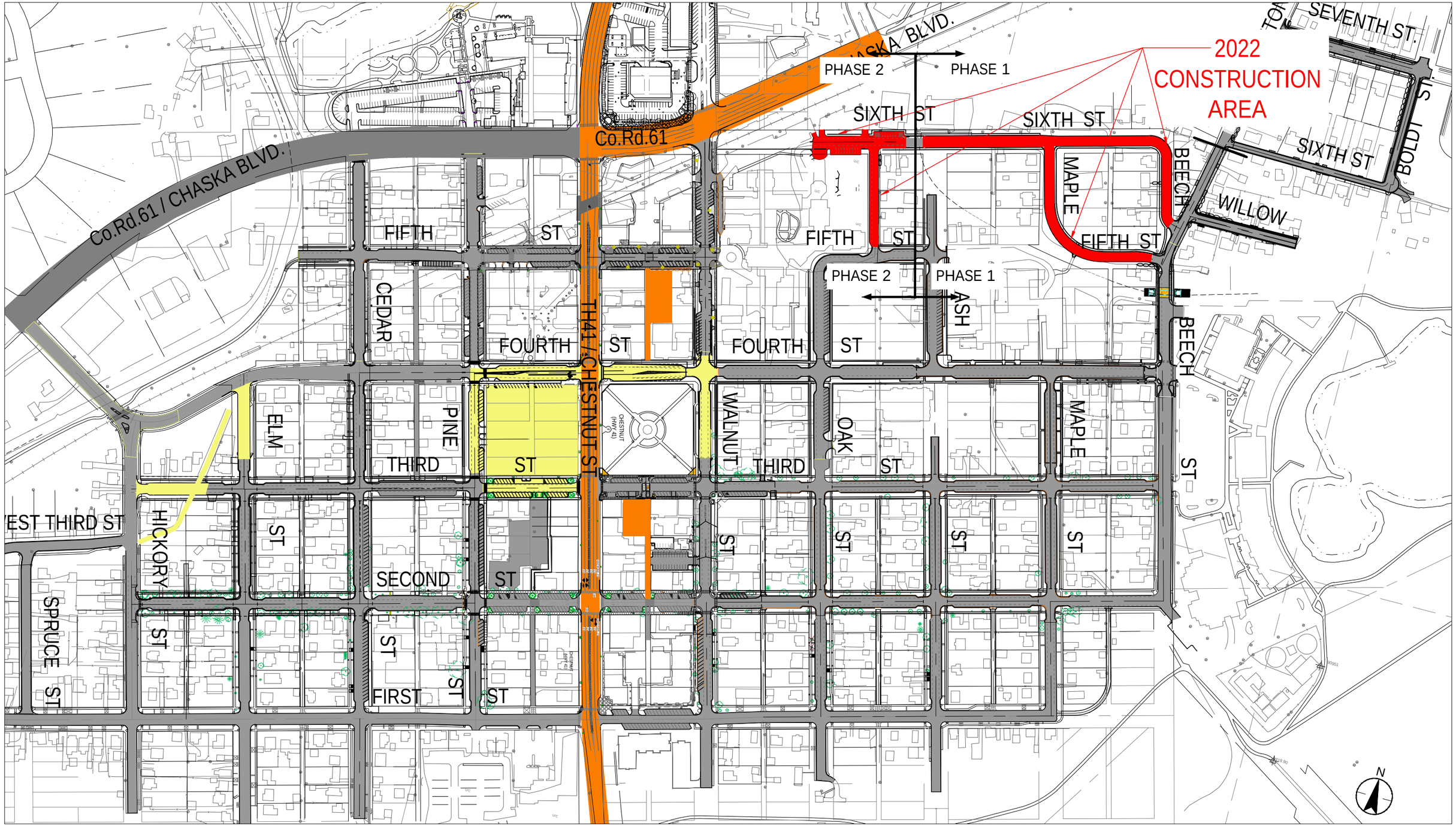
Total project costs are estimated at $6,841,000, with $151,490 proposed to be assessed to private residential properties and $192,346 for commercial property. The balance of the project costs are budgeted and will be covered by the City. An overall special assessment exhibit is attached that shows the assessment amounts for the properties that were identified in the consultation as receiving benefit from this year's downtown project.

Council has been made aware there are four residential properties that were constructed in the mid 2000's where sanitary sewer upgrades occurred with the development. Those properties are to receive a credit for the previous improvements that occurred at the time of development. The credit amount is based on the overall project cost for the improvements that occurred previously. The standard assessment for residential properties in downtown is $7,500 of which these properties are proposed to be reduced to $6,000.

The hearing tonight is to gather further input and amend/adopt the attached assessment role. The terms of the assessments are consistent with past projects, where property owners will have until November 15th to pay the assessments. After that date assessments are certified to the County for collection over a 15-year term at 5.5% interest rate. All assessments are subject to a 1.5% administration charge.

CITY COUNCIL ACTION REQUESTED

Motion to Adopt Resolution No. 2022-49 approving the assessment roll for the 2022 Street Reconstruction Project.



DOWNTOWN CHASKA MASTER STREET LAYOUT

0 150' 300'

CHASKA, MINNESOTA

2022 DOWNTOWN RECONSTRUCTION

RECONSTRUCTED STREETS

FUTURE STREET RECONSTRUCTION

2022 DOWNTOWN RECONSTRUCTION

2022-2023 - TH 41 / CHESTNUT ST. & CSAH 61 / CHASKA BLVD. RECONSTRUCTION.

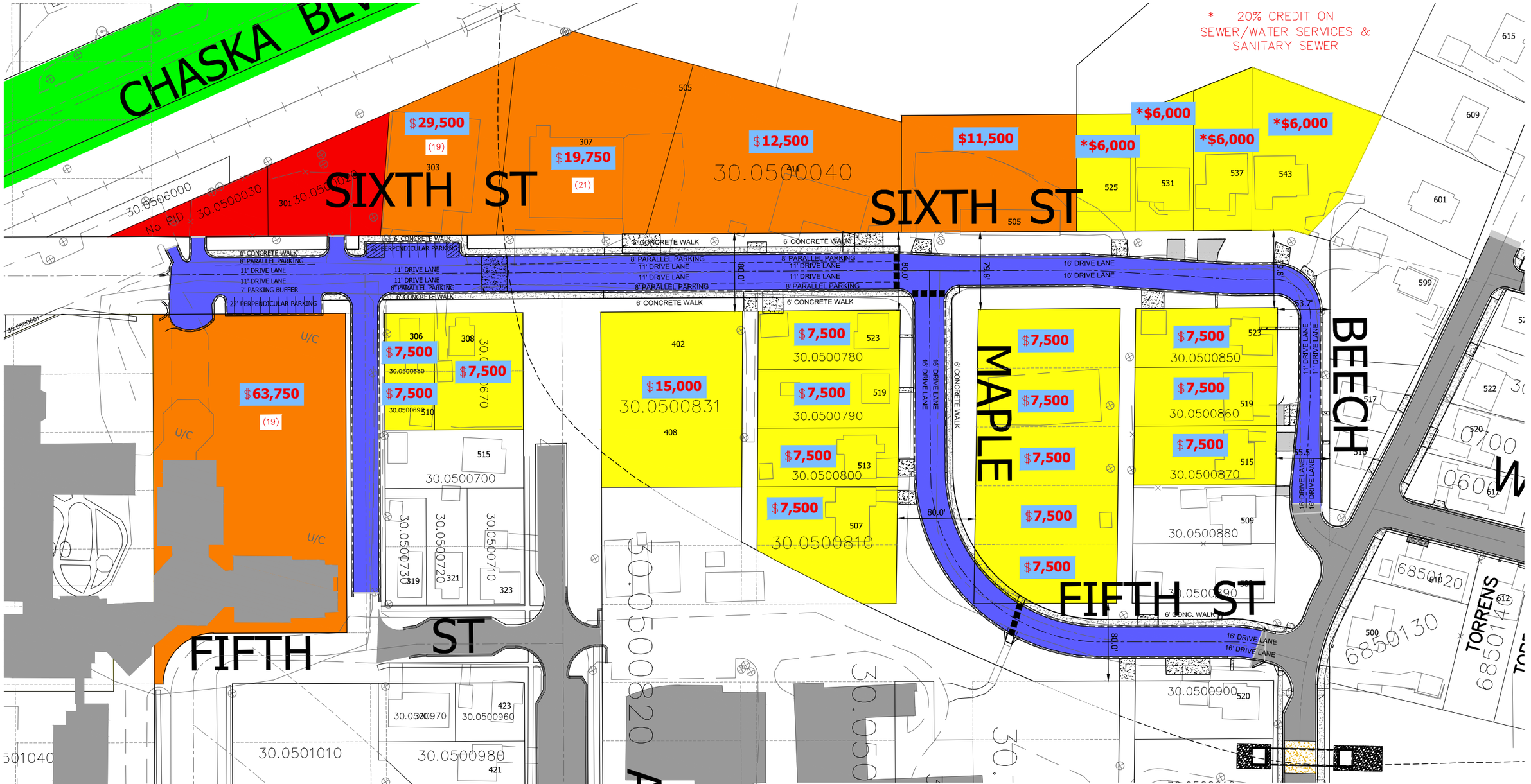
FIGURE A-2

Stantec

733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Date: 01/14/2022 PROJ. NO.: 193800229

Date: 1/14/2022 - 10:07am
Login name: V:\1938\active\193800229\CAD\Dwg\2022 MasterPlan\193800229NSnG-Master Street Lyt.dwg
XREF: 193800229XSFL 193800229FOHO


CHASKA BLVD
SIXTH ST
SIXTH ST
FIFTH ST
FIFTH ST
MAPLE
BEECH
ASH
TORRENS
* 20% CREDIT ON SEWER/WATER SERVICES & SANITARY SEWER
$29,500
(19)
$19,750
(21)
$12,500
$11,500
*$6,000
*$6,000
*$6,000
*$6,000
$63,750
(19)
$15,000
$7,500
$7,500
$7,500

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-49

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution adopting the Special Assessments
for the 2022 Street Reconstruction Project

WHEREAS, pursuant to proper notice duly given as required by law, the Council has met and heard and passed upon objections to the proposed assessment for the 2022 Street Reconstruction Project;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota as follows:

1. Such proposed assessment, a copy of which is attached hereto and made a part hereof as Exhibit A, is hereby accepted and shall constitute a special assessment against the lands named therein and each tract of land therein included is hereby found to be benefited by the proposed improvement in the amount of the assessment levied against it.

2. Payments will extend over a period of fifteen (15) years, as stipulated on the assessment roll, Exhibit A, attached herein and made a part hereto. Installments are to be payable on or before the first Monday in January 2023 and shall bear interest at a rate of 5.5 percent per annum from the date of adoption of this assessment resolution. To each subsequent installment when due shall be added interest for one year on all unpaid installments.

3. The owner of any property so assessed may, at any time prior to certification of the assessment to the County Auditor, pay the whole of the assessment on such property, with interest accrued to the date of payment, to the City Treasurer, except that no interest shall be charged if the entire assessment is paid within 30 days from the adoption of this assessment; and, the owner may, at any time thereafter, pay to the City Treasurer the entire amount of the assessment remaining unpaid, with interest accrued to December 31 of the year in which such payment is made. Such payment must be made on or before November 15 or the interest will be charged through December 31 of the next succeeding year. If you decide not to prepay the assessment before the date given above, the rate of interest that will apply is 5.5 percent per year. The right to partially prepay the assessment is not available.

4. The Clerk shall forthwith transmit a certified duplicate of this assessment to the County Auditor to be extended on the proper tax list of the County and such assessment shall be collected and paid over in the same manner as other municipal taxes.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

.

Exhibit A

2022 Downtown Street/Utility Reconstruction Project

SA Code: 302301
Description: Street/Utility Reconstruction Project
First Yr Payable: 2023
Term: 15 Years
Interest: 5.50%
Extra Days: 257
SA Admin Fee: 1.5% Special Assessment Administrative Fee has been added to each
Payment Calc: Equal Payments, Interest Decreasing as Principal Increases, Extra Days Interest Added to 1st Year

PID	OWNER	PROP ADD	Total Assessment
30.0500040	ANGELICA VITA SAVCHUK	411 6TH ST E	12,688.00
30.0500670	STEVEN S & ANA L LINK	308 6TH ST E	7,613.00
30.0500680	JASON E HUFNAGLE	306 6TH ST E	7,613.00
30.0500690	RAFAEL SANCHEZ SANDOVAL	510 OAK ST N	7,613.00
30.0500780	DAEERE W BALMACEDA	523 MAPLE ST N	7,613.00
30.0500790	MARTIN N & LETICIA DOUGLAS	519 MAPLE ST N	7,613.00
30.0500800	SYLVIA E MATSON	513 MAPLE ST N	7,613.00
30.0500810	WADE A & BARBARA J MORAN	507 MAPLE ST N	7,613.00
30.0500831	CATHERINE V K TARBELL	402 6TH ST E	15,225.00
30.0500850	BENJAMIN A POMROY	523 BEECH ST	7,613.00
30.0500860	JORDAN R GUNHUS	519 BEECH ST	7,613.00
30.0500870	CARL S & LAURA K STEVENS	515 BEECH ST	7,613.00
30.0500950	LANDMARK BUILDERS INC	N/A	38,063.00
30.0520010	AUBURN MANOR	500 WALNUT ST N	64,707.00
30.2760010	STARK LIVING TRUST	525 6TH ST E	6,090.00
30.2760020	MATTHEW J THOMAS	531 6TH ST E	6,090.00
30.2760030	ALAN J STRATTON	537 6TH ST E	6,090.00
30.2760040	BRADLEY A & LISA M RUPERT	543 6TH ST E	6,090.00
30.2760080	LOIS W FLOOD LIVING TRUST	505 6TH ST E	11,673.00
30.5400010	SOUTHWEST METRO INTERMEDIATE DISTRICT #2	303 6TH ST E	29,943.00
30.5400020	POLAR MINNESOTA LLC	307 6TH ST E	20,047.00
			$ 292,836.00

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: **Public Hearing to Consider Certification of Spring 2022 Delinquent Utilities**

Reviewed By: Noel Graczyk, Administrative Services Director
Kelly Grinnell, Finance Manager

Prepared By: Matt Burt, Accountant II
Wendy Hagen, Customer Relations Supervisor

The City annually prepares special assessment rolls for delinquent utilities and unpaid miscellaneous fees. Fees assessed are typically delinquent public utilities but there may also be unpaid mowing fees, alarm fees, and connection fees. By doing this, the City ensures that utility payments that are past due will be collected upon sale of the home. The City assesses any utility billing that have a total balance of $50.00 or more and are 90 days or more delinquent.

Also included on the special assessment rolls for delinquent utility charges are single-family rental properties. This allows the City to guarantee collection of delinquent fees that tenants have incurred by including them in the property taxes of the owner. Rental properties are only subject to assessments for water, sewer, and stormwater charges 90 days or more delinquent.

At the time of the initial mailing, 52 utility billing accounts were notified that they were subject to assessment. Property owners and tenants were provided at least 30 days mailed notice of a public hearing to consider certification of fees to Carver County for unpaid charges as listed in the notice and were given the opportunity to pay their delinquencies prior to the public hearing. The total of the initial rolls at time of mailed notice was as follows:

Delinquent Stormwater Fees:	$ 1,527.37
Delinquent Electric Fees:	$14,668.03
Delinquent Sewer Fees:	$ 4,187.06
Delinquent Water Fees:	$ 4,007.83
Total Delinquent Utility Fees:	$24,390.29

Based on payments made up to this public hearing, there are currently 12 accounts still delinquent totaling as follows:

Delinquent Stormwater Fees:	$ 818.43
Delinquent Electric Fees:	$ 6,234.67
Delinquent Sewer Fees:	$ 2,093.40
Delinquent Water Fees:	$ 1,399.87
Total Delinquent Utility Fees:	$10,546.37

The Spring 2022 special assessment roll for the year payable 2023 of unpaid utility charges is shown as Exhibits A through D and are attached to the proposed resolution. Should Council adopt the resolution, the rolls will be certified to Carver County for collection with payable 2023 property taxes. Charges are proposed to be certified for a period of one (1) year at five (5) percent interest and will include the City's 1.5% special assessment administrative fee.

Staff recommends approval of certification of the unpaid charges.

CITY COUNCIL ACTION REQUESTED
Motion to Approve a Resolution 2022-47 approving certification of delinquent utilities and miscellaneous unpaid charges to Carver County for collection with the payable 2023 property taxes.

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-47

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

A Resolution Approving Certification to Carver County of Spring 2022 Unpaid Delinquent Public Utilities

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WHERAS, pursuant to proper notice duly given as required by law, the Council has met and heard and passed upon objections to the proposed certification of unpaid delinquent storm water, sewer, water, and/or electric utilities.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, as follows:

1. Such proposed charges, a copy of which is attached hereto and made a part hereof as Exhibits A through D, are hereby accepted and shall constitute a charge against the lands named therein.

2. Such charges shall be payable in an annual installment that shall include both principal and interest, extending over a period of one (1) year, payable on or before the first Monday in January 2023, and shall bear interest at a rate of five (5) percent per annum from the date of adoption of this resolution.

3. The owner of any property so charged may, at any time prior to certification to the Carver County Taxpayer Services Department, pay the entire delinquent amount against such property, with interest accrued to the date of payment, to the City Clerk, except that no interest shall be charged if the entire amount is paid within 30 days from the adoption of this resolution. The right to partially prepay the delinquent charges is not available.

4. The Clerk shall forthwith transmit a certified duplicate of this roll to the Carver County Taxpayers Services Department to be extended on the proper tax list of the County and such charges shall be collected and paid over in the same manner as other municipal taxes.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Deputy Clerk

Exhibit A

CERTIFICATION OF DELINQUENT STORMWATER ACCOUNTS

Special Assessment Terms

S/A Code:	302302	Term:	1 year
Roll Adopted:	4/18/2022	Annual Interest Rate:	5.00%
Year Payable:	2023	Extra Days Interest:	257

PID	Property Address	Name	Fee
30.0031200	1170 STOUGHTON AVE	RENEE OAKLEY	$ 33.00
30.0501770	316 N CEDAR ST	JESSE WRIGHT	164.00
30.0502300	208 N MAPLE ST	BRANDON BRINK	88.00
30.0505390	520 W 1ST ST	DANIEL ZUELKE	45.00
30.1360070	1118 CRYSTAL PL W	GEOFFREY SCHROEPFER	35.00
30.1380040	1300 CRYSTAL LN	KENNETH SCHULTZ	399.00
30.3580070	110154 STANFORD CIR	RONALD BORG	68.00
30.6350380	110277 VILLAGE RD	YATIVIA HOGAN	4.00
		TOTAL TO CERTIFY TO CARVER COUNTY	**$ 836.00**

(INCLUDES 1.5% SPECIAL ASSESSMENT FEE)

Exhibit B

CERTIFICATION OF DELINQUENT ELECTRIC ACCOUNTS

Special Assessment Terms

S/A Code:	302302	Term:	1 year
Roll Adopted:	4/18/2022	Annual Interest Rate:	5.00%
Year Payable:	2023	Extra Days Interest:	257

PID	Property Address	Name	Fee
30.0031200	1170 STOUGHTON AVE	RENEE OAKLEY	$ 305.00
30.0501770	316 N CEDAR ST	JESSE WRIGHT	2,130.00
30.0502300	208 N MAPLE ST	BRANDON BRINK	2,337.00
30.0505390	520 W 1ST ST	DANIEL ZUELKE	78.00
30.1360070	1118 CRYSTAL PL W	GEOFFREY SCHROEPFER	978.00
30.3580070	110154 STANFORD CIR	RONALD BORG	273.00
30.6350380	110277 VILLAGE RD	YATIVIA HOGAN	230.00
		TOTAL TO CERTIFY TO CARVER COUNTY	**$ 6,331.00**

(INCLUDES 1.5% SPECIAL ASSESSMENT FEE)

Exhibit C

CERTIFICATION OF DELINQUENT SEWER ACCOUNTS

Special Assessment Terms

S/A Code:	302302	Term:	1 year
Roll Adopted:	4/18/2022	Annual Interest Rate:	5.00%
Year Payable:	2023	Extra Days Interest:	257

PID	Property Address	Name	Fee
30.0031200	1170 STOUGHTON AVE	RENEE OAKLEY	$ 397.00
30.0501770	316 N CEDAR ST	JESSE WRIGHT	359.00
30.0502300	208 N MAPLE ST	BRANDON BRINK	487.00
30.0505390	520 W 1ST ST	DANIEL ZUELKE	11.00
30.1360070	1118 CRYSTAL PL W	GEOFFREY SCHROEPFER	155.00
30.2100130	1088 BLUFF PASS S	PAUL LANO	349.00
30.3580070	110154 STANFORD	RONALD BORG	61.00
30.6900020	414 N WALNUT ST	HARRY NIEMELA	311.00
		TOTAL TO CERTIFY TO CARVER COUNTY	**$ 2,130.00**

(INCLUDES 1.5% SPECIAL ASSESSMENT FEE)

Exhibit D

CERTIFICATION OF DELINQUENT WATER ACCOUNTS

Special Assessment Terms

S/A Code:	302302	Term:	1 year
Roll Adopted:	4/18/2022	Annual Interest Rate:	5.00%
Year Payable:	2023	Extra Days Interest:	257

PID	Property Address	Name	Fee
30.0031200	1170 STOUGHTON AVE	RENEE OAKLEY	$ 298.00
30.0501770	316 N CEDAR ST	JESSE WRIGHT	256.00
30.0502300	208 N MAPLE ST	BRANDON BRINK	332.00
30.0505390	520 W 1ST ST	DANIEL ZUELKE	8.00
30.1360070	1118 CRYSTAL PL W	GEOFFREY SCHROEPFER	102.00
30.2100130	1088 BLUFF PASS S	PAUL LANO	60.00
30.3580070	110154 STANFORD	RONALD BORG	38.00
30.6900020	414 N WALNUT ST	HARRY NIEMELA	331.00
		TOTAL TO CERTIFY TO CARVER COUNTY	**$ 1,425.00**

(INCLUDES 1.5% SPECIAL ASSESSMENT FEE)

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: **Cantissimo of Chaska - 32 Unit Assisted Living and Memory Care Building – Preliminary Site & Building Plan, Preliminary Plat & Rezoning**

Applicant: Anasazi Holdings, LLC

Location: Southeast corner of Hundertmark Road and Pioneer Trail

Case No.: P.C. No. 2022-01

Synopsis: The applicant is requesting approval of the preliminary plan for a new 32-unit assisted living and memory care building

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt Resolution and Ordinance

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BACKGROUND

In May and July of 2000, the Pioneer Pointe development was fully approved. This development is directly south of the subject property (also known as the former Fred Molnau parcel) being looked at tonight. During the 2000 Pioneer Pointe approvals Fred Molnau's 2.7-acre property was referenced. Mr. Molnau decided to hold off on developing his parcel with Pioneer Pointe as his desires were to rezone the parcel to Commercial. At that time staff indicated that they are not in support of such rezoning and that the parcel should remain residential based on its size, configuration, and the City's Comprehensive Plan that guides it to be residential.

In March 2019, a different Concept Plan (Hazel View Senior Cooperative) was approved for a four-story, 37-unit senior Co-op building on this site. This plan never came in for subsequent approvals and has since been abandoned.

In April 2021, the Concept Plan for Cantissimo was approved.

Comparison to Former Hazel View Concept Plan

Use: Hazel View was a Senior Cooperative apartment building for people 62 years and older; the new use is proposing an assisted living and memory care facility.

Units: Hazel View proposed 37 total residential units; this new use is proposing 32 units with 38 residents.

Size: Hazel View proposed 4 stories and approximately 68,000 square feet in size. An underground parking lot was also proposed, which required more excavation to take place

on the site; this new use will be one story and approximately 22,000 square feet in size. No underground parking is proposed.

Parking: Hazel View proposed 50 total parking space (30 underground and 20 above ground); the new use proposes to have only an above ground parking lot with 25 spaces.

Tree Preservation: Hazel View proposed to save 25 of the 35 trees identified by staff for tree preservation; this new use is showing to preserve 28 of the 35 trees.

Changes Since Concept Plan

Alignment of Driveway Access: the alignment of the access into the site has moved southerly to align with Super Target's access to the west. This was advised by City and County staff. In order to achieve this alignment the site has to secure an easement from the Pioneer Pointe development to the south. Pioneer Pointe has provided approval of such easement. A designated southbound left-turn lane on Hundertmark Road will also be installed so that there is efficient traffic flow into the site.

Goals

CHASKA'S HIGH QUALITY OF LIFE IS ENHANCED – This project provides a low impact development on the 2.7-acre site by maintaining most of the site in its natural state providing open spaces and environmental preservation. This will allow the residents to enjoy these open spaces as well as the public with the adjusted walking trail along Pioneer Trail.

WELL PLANNED AND ORDERLY COMMUNITY DEVELOPMENT IS A PRIORITY – This new development will have a positive impact to the community in providing much needed senior housing options. The project sits adjacent to an existing townhome development and therefore consistent with the land use contemplated for the area. The infrastructure is already in place, thus allowing a cost-effective development for the City and its shareholders.

A SENSE OF COMMUNITY AND SMALL TOWN TALUES ARE MAINTAINED – This project will certainly provide an emphasis on family, neighborhood, and integration. It integrates along with townhome development to the South, as well as single family development to the West. The Chaska High School is near to the East and supports many public activities as well as a local meeting space for local church services. This will allow active participation in civic, religious, and other volunteer activities given its proximity to these amenities.

COMMITMENT TO EXCELLENCE – We believe that Cantissimo of Chaska will bolster this commitment. Our Development team has an excellent track record in providing a high-quality development and shares the same desire and vision of excellence that the city of Chaska possesses.

ZONING & COMPREHENSIVE PLAN
Currently, the site is zoned Planned Residential District (PRD-38). The Comprehensive Plan guides this parcel to be Medium Density Residential. The use that is being proposed is consistent with this guidance.

EXISTING CONDITIONS
The site is located on the southeast corner of Hundertmark Road and Pioneer Trail. It is a 2.7 acre triangular parcel with a scattering of significant trees. The site is currently vacant, and was a remnant of the Pioneer Pointe development. There are two bituminous public trails on the property; one on the northern portion of the site that runs parallel with Pioneer Trail, and one on the west side that runs parallel with Hundertmark Road. There also exists a drainage swale that runs north-south that splits the property in half.

CURRENT REQUEST
The applicant, Anasazi Holdings, LLC, is requesting Preliminary Site & Building Plan, Preliminary Plat and Rezoning approval for the construction of an assisted living and memory care building totaling 32 units (38 residents), 22,000 square feet in size, and one-story in height.

Adjacent properties
The new building's site is bounded on the south by the residential development Pioneer Pointe; the north by Pioneer Trail and a City trail; the east by Pioneer Trail; and the west by Hundertmark Road and a City trail.

Site Layout
The one-story building and parking are situated mainly on the western side of the site, due in part to the narrow shape of the site and the fact that the eastern end has very little buildable room. One access point is proposed on the west edge of the site to connect into Hundertmark Road. This ingress/egress will provide access to the surface parking lot. The parking lot is proposed on the southern portion of the site with the building just north of that. Two patio spaces are proposed on the north and east sides of the site.

The applicant has stated that several layouts were reviewed for the placement of the building and parking area. As the access from Hundertmark Road will be the only access and its location limited to the southern-most point of the property, it only made sense to place the parking lot on the south side with the building just north of that so that impervious surface was minimized to its greatest extent. The applicant also explored the potential in creating a two-story versus one-story building to lessen the building footprint on the site. However, the building was ultimately decided as a one-story for the following reasons according to the applicant:

1. It is considered desirable for the residents to live in a one-story building. We feel that residents will be more comfortable in a one-story where all the living is on one level rather than dealing with stairs and an elevator to get around their living environment.
2. A one-story building would be less obtrusive to the neighborhood to the South as well as to the intersection of Pioneer Trail and Hundertmark Road.

3. Instead of 32 units, we would need 44-48 units for a two-story building. This increase would be necessary because a two-story building will be more expensive to build and operate. This is a result of a code requirement that a two-story building be constructed of steel and concrete rather than wood, two sets of stairwells would be required to meet code, an elevator would be required to meet code and additional staff would be needed to cover two different floor levels.
4. The increase in units would require an increase in parking and traffic. The increase of 25 parking spaces to 32 means an increase in parking lot cover of approximately 2200 square feet. This increase in parking and traffic would be less desirable with the curved access point at the Southwest tip of the property.
5. While the bigger footprint will impact more trees, the actual loss of trees is less than the previous concept recommended for approval because of the bigger excavation area due to the proposed sub-garage of the previous project. Our concept is of slab on grade construction with minimal excavation. Please refer to Exhibit A on sheet A1.2.
6. The one-story with less units falls more in line with the Chaska Mission Statement: to be the 'Best Small Town in Minnesota'.

Overall, staff is generally favorable of the site layout. There are not many options for this site and the applicant has made decisions that seem to make the most sense. Providing more of a separation between the senior building and townhome buildings to the south seems most appropriate. The building will be the main focus on the intersection of Hundertmark Road and Pioneer Trail rather than the parking lot, which staff is favorable of. The building and layout will be less intrusive from a tree preservation and height perspective compared to the previously approved Concept Plan for Hazel View. It will be important, however, that there is an adequate buffer and screen between the parking lot and residential to the south.

Building Design

The building is a subtle u-shape in footprint and will be one-story tall with the front entrance facing the south towards the parking lot. The footprint is meant to provide interest and form to the site while allowing adequate sight lines near the intersection of Hundertmark Road and Pioneer Trail. The proposed building will be constructed with lap and shake siding, stone, glass, and have a pitched roof. The City of Chaska has certain building design and material requirements for multi-family residential buildings. A portion of it is stated as follows:

"Multi-family buildings shall use at least three (3) Class I materials and shall be composed of at least eighty (80) percent Class I materials, and no more than five (5) percent Class III materials

Building Materials	
Class I	Glass, stone, LP siding (shakes and board & batten) (100%)
Class II	Not provided
Class III	Not provided
CLASS I	80%; three different materials

REQUIRED	
CLASS III REQUIRED	Shall not exceed 5%
CLASS I PROVIDED	100%; three different materials
CLASS III PROVIDED	None

The applicant is showing that they are meeting the building requirements for Multi-Family. An item of note is the stone to be used. In order to be classified as a Class I material, the stone needs to be natural stone. The applicant will need to provide a physical sample of such for staff to make a full determination.

The applicant has provided a couple renderings/drawings of the building. The building's exterior appearance appears to show a well-balanced application of materials and depth. Given that this building will have high visibility on all of its sides, staff would advise that 360 degree architecture is achieved throughout the building. In addition to that, the building will have to show how it fits into the context of Chaska.

Setbacks
The required setbacks for the site are as follows:

BUILDING SETBACKS	
Direction	**Setback**
Hundertmark Road	100 feet from centerline
Pioneer Trail	125 feet from centerline
South Property Line	20 feet
PARKING SETBACKS	
Direction	**Setback**
ROW	10 feet
South Property Line	10 feet

This setback variance request was also made during the Hazel View concept plan. Staff's analysis was generally the same as stated above. However, the proposed site plan for Cantissimo provides less impact compared to Hazel View's from a parking, height, and tree preservation perspective. The added 20 foot building setback on the south property line thus pushes the building closer to Pioneer Trail, so their request to deviate 25 feet into the Pioneer Trail setback appears to be an even trade-off.

<u>100' versus 125' Building Setback from Centerline of Pioneer Trail</u>
The applicant is asking for a reduction in the Pioneer Trail setback to be 100 feet from the centerline (25 foot variance) so that there is more usable space on the property. Their building is proposing to meet a 100' centerline setback. The property is tight to begin with because of its shape. In essence, half of the property is unbuildable with setbacks applied. Because this property is not a part of the Pioneer Pointe development

there is an additional building setback from the south property line (20 feet), which in turn, creates less buildable room. The applicant is showing the building to be 28 feet off the southern property line to make room for the parking lot. Staff's main concern with the reduction is the safety component and whether there will be adequate sight lines at the corner of Hundertmark Road and Pioneer Trail. Because of the placement and shape of the building, the site does not appear to pose a sight line concern.

A logical analysis is flipping the building and the parking lot so that the building can meet setbacks. The developer did explore this and has provided an analysis and exhibit in their submittal. In general, flipping the building and parking would create more impervious surface and more impacts on trees. The flip would also require the building to be reshaped to fit into the setbacks. 12 additional trees would be removed with this flipped layout; 9 of those are considered significant.

The driveway access requires to be placed southerly to align with Super Target's access on Hundertmark Road. With that in mind, the parking lot was oriented on the south of the site to be closer to the access point and have less of an impervious footprint. The building is oriented just north of that.

From staff's standpoint the irregular shape of the lot and the preservation of significant trees are grounds for a variation from the setback. The developer has chosen a layout that would appear to be the most logical and least impactful to justify the proposed variation.

Parking/Access/Circulation/Traffic

24 parking spaces are proposed as a part of this project. The following chart summarizes the overall parking demand on the site, based on the approximated sizes of the conceptual uses.

Uses	Approx. Size	Code Req.	Est. Parking Req.
Multi-Family Res. - Senior	32 dwelling units	1ps/2 dwelling units	16 parking spaces
		REQUIRED	**16 parking spaces**
		PROVIDED	**24 parking spaces**

According to this table the applicant is meeting the required amount of parking spaces needed for the proposed use of the site. The applicant has stated that they will have 12 employees total, and with the addition of guests coming into the facility the parking will be more than sufficient to serve the use. The residents of the facility will not be driving nor have cars. The parking lot is situated on the south side of the site facing Pioneer Pointe to the south. The applicant is showing a 6 foot privacy fence to provide separation between the parking lot/driveway access and Pioneer Pointe to the south.

The access into the site will be from one ingress/egress on Hundertmark Road. The access is shown to encroach onto Pioneer Pointe's property to the south so that the driveway can completely align with Super Target's access to the west. This was required by both City and County staff to provide proper traffic movement into and out of the site.

Pioneer Pointe has approved an easement so that this alignment can occur. In addition, a dedicated left-turn lane is also shown on Hundertmark Road to access the site. This turn lane is required in order for proper traffic movements to occur.

It should be noted that when the Pioneer Pointe development went in the three driveways on its northern edge were stubbed off for the purpose of connecting into the site to north of it (this subject site) when it decided to develop. However, this was done so that the same type of development (Townhomes) could extend onto this site. That is not the case with this proposal. With that said, the HOA of Pioneer Pointe have previously denied the ability to connect to their site as they do not want the additional traffic added to their development; this was stated during the Hazel View concept plan. An access point off of Pioneer Trail was also explored in previous submittals, however, Carver County has also denied the opportunity of gaining access on their road. Because of this the applicant has proposed to gain access off of Hundertmark Road.

A traffic analysis was completed for this site. The traffic analysis concluded that layout and use of the site will operate adequately.

Pedestrian Connections

The site currently has two public trails that transcend through the site; one on the west side that runs parallel with Hundertmark Road; one on the north side that runs parallel with Pioneer Trail. The applicant is showing in their plan connecting to both trail networks. The east side of the building shows a sidewalk connection from the building and parking lot that connects into the Pioneer Trail trail. The west side of the building also shows a sidewalk connection from the building and parking lot that connects into the Hundertmark Road trail.

It should be noted that the traffic study done for Hazel View recommends that a pedestrian connection at the site access should not be provided across Hundertmark Road to connect into Super Target's access. This is primarily due to the unsafe connection it creates; the oversaturation of connections across Hundertmark are the main reasons for unsafety. The study recommends that pedestrians use the existing pedestrian connection at the Pioneer Trail and Hundertmark Road intersection to connect into Super Target as opposed to creating another connection at the new access point into Cantissimo.

The applicant is showing the re-alignment of the public trail on the north side of the site. Currently the trail meanders through the site. This was done intentionally to help preserve trees on site. Staff has looked into this more and have determined that this is an acceptable re-alignment. There is currently a drainage issue in this area that will ultimately have to be fixed with this project. Because of this the trees will be disrupted regardless. Having the trail closer to the road, while still providing an adequate buffer, is the most ideal option from a City perspective. Additionally, the trees that are to be disrupted are mainly cottonwoods and box elders, which are not necessarily the most desirable in saving.

Tree Preservation & Landscaping

Tree Preservation will be important on this site. There are significant clusters of trees that exist. The applicant has provided a tree survey to indicate where these trees are

located. A majority are located on the western half of the site where the building and parking lot are going. Other clusters exist on the eastern half, which are proposed to be preserved. There is also a cluster of trees on the western-most side of the site that are generally proposed to be preserved as well. There is a cluster on the north side of the site that are shown to be effected by the proposed re-alignment of the public trail. As iterated before, this re-alignment is acceptable by staff given the trees to be effected are not considered desirable. Staff provided an analysis that highlighted specific areas to focus tree preservation attention on. That exhibit is shown below and circles 35 total trees in red. Staff advised to preserve the areas to the greatest extent possible on the west, north and east sides as shown in the exhibit in red.



The Cantissimo plan proposes to preserve 28 of the 35 trees. The layout of the building and parking lot were done intentionally to preserve as many trees as possible. From staff's perspective the developer has done an exceptional job in trying to preserve as many trees as possible.

The table below indicates the landscaping requirements for this site:

LANDSCAPING REQUIREMENTS & PROPOSED		
	Required	**Proposed**
Overstory Trees	70 caliper inches (26 trees)	37 existing and 36 new
Understory Trees	7	16
Shrubs	227	227

According to the table above the applicant is meeting the landscape requirements for the site.

Landscaping will be achieved around the site particularly on the south edge adjacent to the privacy fence and Pioneer Pointe. There are also a healthy grouping of plantings around the sidewalk and patio areas.

Usable Open Space
Multi-Family residential building sites are required to provide sufficient, usable open space, which is defined as defined as "a portion of a lot which provides the purpose for outdoor recreation, scenic amenity, and/or shared exterior space for people to gather and use".

The applicant is currently showing two outdoor patio spaces; one on the north side and one on the east side. Most of the residents occupying this building cannot be outside on their own so the enclosed patio space on the north side will be a nice exterior setting that is safe and secure. The east patio will be another option for residents who do not require as much overwatch. Sidewalks will also connect these spaces to the outlying trail systems.

Lighting
Any lighting proposed for this plan should be fully screened and face downward. The applicant has shown in this preliminary submittal the photometrics and specs for all lighting proposed. 18 foot pole mounts will be used in the parking lot, and 12 foot wall mounts will be used on the building.

Utilities
Water and sewer are available to serve this site.

Stormwater
The applicant will work with the City to determine the drainage necessities for the site. The applicant is showing an underground biofiltration basin on the east side of the site.

Impact to Public Safety
Because this facility is a residential facility specializing in medical care, the City likes to get an understanding of the medical services provided internally (ie. lift assist and CPR) to see if there will be a major impact to the City's emergency services (Fire and Police). The applicant has provided an addendum in their narrative to elaborate on the services they provide. In sum, the City's Fire Department was generally comfortable with the services and policies they have in place to deal with emergency situations.

Preliminary Plat
The site will be platted into one lot. There are no outlots.

Rezoning
The site is being rezoned from Rural (R) to Planned Residential District No. 83 (PRD-83).

Deadline for Agency Action
The City of Chaska received the complete application for this request on March 21, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Friday, May 20, 2022 (60 days)**, unless the City provides the petitioner with written reasons for an additional 60-day review period. The additional review period would extend to Tuesday, July 19, 2022. The City may with the petitioner's consent extend the review period beyond the Tuesday, July 19, 2022 date. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

PLANNING COMMISSION ACTION TAKEN 04/13/2022:

Motion to recommend approval to the City Council of the Preliminary Site & Building Plan and Preliminary Plat for Cantissimo of Chaska, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Narrative (pgs 1-8), submitted by TCO Design, dated December 14, 2021, February 28, 2022 and March 21, 2022.
    b. Traffic Analysis Memo (pgs 1-12), submitted by Swing Traffic Solutions, dated November 4, 2021
    c. Existing Conditions Plan, submitted by Premier Land Surveying, dated May 23, 2018
    d. Boundary & Topographic Survey, submitted by Premier Land Surveying, dated May 17, 2017
    e. Previous Concept Excavation Area Plan (pg A1.2), submitted by Jim Mackey Architect, dated December 7, 2021
    f. Aerial Site Exhibit, submitted by Jim Mackey Architect, dated December 7, 2021
    g. Context Map/Site Influences (pg A1.4), submitted by Jim Mackey Architect, dated December 7, 2021
    h. Site Plan (pg A1.1), submitted by Jim Mackey Architect, dated March 21, 2022
    i. Landscape Plan (pg A1.2), submitted by Jim Mackey Architect, dated March 22, 2022
    j. Lighting Plan (pg A1.3), submitted by Jim Mackey Architect, dated March 22, 2022
    k. Building South 100' Setback Exhibit (pg A1.8), submitted by Jim Mackey Architect, dated March 21, 2022
    l. Firetruck Turning Movements, submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
    m. Preliminary Plat, submitted by Demarc Land Surveying & Engineering, dated March 29, 2022
    n. Preliminary Title Sheet (pg C1), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
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    p. Preliminary Existing Conditions & Removals (pg C6), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
    q. Preliminary Site Plan (pg C7), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
    r. Preliminary Grading & Drainage Plan (pg C8), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
    s. Preliminary Utility Plan (pg C9), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
    t. Preliminary Stormwater Pollution Prevention Plan (pg C10), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
    u. Preliminary Stormwater Pollution Prevention Plan Notes, (pg C11), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
    v. Building Floor Plan (pg A2.1), submitted by Jim Mackey Architect, dated December 7, 2021
    w. Exterior Elevations (pg A3.1), submitted by Jim Mackey Architect, dated December 7, 2021
    x. Renderings (pg A3.2), submitted by Jim Mackey Architect, dated December 7, 2021
2. Coordination with the City Engineer with regard to utilities, grading and drainage.

3. Installation of all site lighting at a 0 degree angle with the light source fully concealed at the property line.
4. Provision that all facades provide 360 degree architecture.
5. Utilization of natural stone as a Class I material.
6. No exterior storage will be permitted.
7. Provision of hydrant placement needs to accommodate City standards for hydrant placement and fire code standards.
8. Provision to submit Utility and Site Plan As-Builts prior to a certificate of occupancy being issued.
9. Any and all building signage shall be submitted separately, meet the sign ordinance section 15.32, and shall obtain sign permits prior to installation.
10. Provision of a storm water management plan meeting City and Carver County WMO standards.
11. Compliance with applicable zoning requirements, in particular Chapter 15.28 (Special Regulations).
12. Provision that all mechanical equipment will be fully screened from view.
13. Adherence with the Engineers Memo dated April 13, 2022.
14. Adherence with Carver County Public Work's memo dated March 29, 2021 and updated April 1, 2022.
15. Provision of a southbound left turn lane on Hundertmark Road consistent with Carver County and City standards.
16. Provision of an engineered plan of the southbound left turn lane on Hundertmark Road to be shown on the final plans.
17. Provision that a cross access easement be completed and executed on Pioneer Pointe's site prior to final plat recording.

Motion to recommend approval of the rezoning from PRD-38 to Planned Residential District No. 83. (PRD-83).

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-41 approving the Preliminary Site & Building Plan and Preliminary Plat for Cantissimo of Chaska (PC #2022-01).

Motion to adopt Ordinance No. 1014 approving the rezoning from Planned Residential District (PRD-38) to Planned Residential District (PRD-83).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-41

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Preliminary Site & Building Plan and Preliminary Plat for Cantissimo of Chaska/Anasazi Holdings/PC #2022-01

WHEREAS, the applicant, Anasazi Holdings, LLC, is requesting Preliminary Site & Building Plan, Preliminary Plat and Rezoning approval for the construction of an assisted living and memory care building totaling 32 units (38 residents), 22,000 square feet in size, and one-story in height; and

WHEREAS, the one-story building and parking are situated mainly on the western side of the site, due in part to the narrow shape of the site and the fact that the eastern end has very little buildable room; and

WHEREAS, one access point is proposed on the west edge of the site to connect into Hundertmark Road; and

WHEREAS, this ingress/egress will provide access to the surface parking lot; and

WHEREAS, the parking lot is proposed on the southern portion of the site with the building just north of that; and

WHEREAS, the building is a subtle u-shape in footprint and will be one-story tall with the front entrance facing the south towards the parking lot; and

WHEREAS, the footprint is meant to provide interest and form to the site while allowing adequate sight lines near the intersection of Hundertmark Road and Pioneer Trail; and

WHEREAS, the proposed building will be constructed with lap and shake siding, stone, glass, and have a pitched roof; and

WHEREAS, the applicant is asking for a reduction in the Pioneer Trail setback to be 100 feet from the centerline (25 foot variance) so that there is more usable space on the property; and

WHEREAS, their building is proposing to meet a 100' centerline setback; and

WHEREAS, the property is tight to begin with because of its shape; and

WHEREAS, a logical analysis is flipping the building and the parking lot so that the building can meet setbacks; and

WHEREAS, the developer did explore this and has provided an analysis and exhibit in their submittal; and

WHEREAS, in general, flipping the building and parking would create more impervious surface and more impacts on trees; and

WHEREAS, 12 additional trees would be removed with this flipped layout; 9 of those are considered significant; and

WHEREAS, from staff's standpoint the irregular shape of the lot and the preservation of significant trees are grounds for a variation from the setback; and

WHEREAS, the developer has chosen a layout that would appear to be the most logical and least impactful to justify the proposed variation; and

WHEREAS, 24 parking spaces are proposed as a part of this project; and

WHEREAS, the applicant is showing a 6 foot privacy fence to provide separation between the parking lot/driveway access and Pioneer Pointe to the south; and

WHEREAS, the access into the site will be from one ingress/egress on Hundertmark Road; and

WHEREAS, the access is shown to encroach onto Pioneer Pointe's property to the south so that the driveway can completely align with Super Target's access to the west; and

WHEREAS, Pioneer Pointe is ready to approve an easement so that this alignment can occur; and

WHEREAS, the Cantissimo plan proposes to preserve 28 of the 35 trees noted by staff to save; and

WHEREAS, a dedicated left-turn lane is also shown on Hundertmark Road to access the site; and

WHEREAS, the applicant is currently showing two outdoor patio spaces; one on the north side and one on the east side; and

WHEREAS, most of the residents occupying this building cannot be outside on their own so the enclosed patio space on the north side will be a nice exterior setting that is safe and secure; and

WHEREAS, the east patio will be another option for residents who do not require as much overwatch; and

WHEREAS, the site will be platted into one lot, and there are no outlots; and

WHEREAS, on April 13, 2022 the Planning Commission recommended approval to the City Council of the Preliminary Site & Building Plan and Preliminary Plat for Cantissimo of Chaska (PC#2022-01); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Preliminary Site & Building Plan and Preliminary Plat for Cantissimo of Chaska (PC#2022-01), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Narrative (pgs 1-8), submitted by TCO Design, dated December 14, 2021, February 28, 2022 and March 21, 2022.
    b. Traffic Analysis Memo (pgs 1-12), submitted by Swing Traffic Solutions, dated November 4, 2021
    c. Existing Conditions Plan, submitted by Premier Land Surveying, dated May 23, 2018

d. Boundary & Topographic Survey, submitted by Premier Land Surveying, dated May 17, 2017
e. Previous Concept Excavation Area Plan (pg A1.2), submitted by Jim Mackey Architect, dated December 7, 2021
f. Aerial Site Exhibit, submitted by Jim Mackey Architect, dated December 7, 2021
g. Context Map/Site Influences (pg A1.4), submitted by Jim Mackey Architect, dated December 7, 2021
h. Site Plan (pg A1.1), submitted by Jim Mackey Architect, dated March 21, 2022
i. Landscape Plan (pg A1.2), submitted by Jim Mackey Architect, dated March 22, 2022
j. Lighting Plan (pg A1.3), submitted by Jim Mackey Architect, dated March 22, 2022
k. Building South 100' Setback Exhibit (pg A1.8), submitted by Jim Mackey Architect, dated March 21, 2022
l. Firetruck Turning Movements, submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
m. Preliminary Plat, submitted by Demarc Land Surveying & Engineering, dated March 29, 2022
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v. Building Floor Plan (pg A2.1), submitted by Jim Mackey Architect, dated December 7, 2021
w. Exterior Elevations (pg A3.1), submitted by Jim Mackey Architect, dated December 7, 2021
x. Renderings (pg A3.2), submitted by Jim Mackey Architect, dated December 7, 2021

2. Coordination with the City Engineer with regard to utilities, grading and drainage.
3. Installation of all site lighting at a 0 degree angle with the light source fully concealed at the property line.
4. Provision that all facades provide 360 degree architecture.
5. Utilization of natural stone as a Class I material.
6. No exterior storage will be permitted.
7. Provision of hydrant placement needs to accommodate City standards for hydrant placement and fire code standards.
8. Provision to submit Utility and Site Plan As-Builts prior to a certificate of occupancy being issued.
9. Any and all building signage shall be submitted separately, meet the sign ordinance section 15.32, and shall obtain sign permits prior to installation.
10. Provision of a storm water management plan meeting City and Carver County WMO standards.
11. Compliance with applicable zoning requirements, in particular Chapter 15.28 (Special Regulations).
12. Provision that all mechanical equipment will be fully screened from view.
13. Adherence with the Engineers Memo dated April 13, 2022.
14. Adherence with Carver County Public Work's memo dated March 29, 2021 and updated April 1, 2022.

15. Provision of a southbound left turn lane on Hundertmark Road consistent with Carver County and City standards.
16. Provision of an engineered plan of the southbound left turn lane on Hundertmark Road to be shown on the final plans.
17. Provision that a cross access easement be completed and executed on Pioneer Pointe's site prior to final plat recording.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

CITY OF CHASKA

ORDINANCE NO. 1014

MOTION BY COUNCILMEMBER _____, SECOND BY COUNCILMEMBER _____

AN ORDINANCE AMENDING ORDINANCE NO. 229 (ZONING ORDINANCE) BY REZONING CERTAIN REAL ESTATE WITHIN THE CITY OF CHASKA FROM PRD-38 TO PRD-83 AND BY ESTABLISHING PERMITTED USES AND REGULATIONS FOR PRD-83 (CANTISSIMO)

THE CITY COUNCIL OF THE CITY OF CHASKA DO ORDAIN:

Section I. Rezoning. The boundaries of the Zoning District as established by Ordinance No. 229 and as shown on the Zoning Map of Chaska, Minnesota are hereby amended as follows:

The following described real estate is hereby removed from the Planned Residential District (PRD-38) zoning district and rezoned to Planned Residential District No. 83 (PRD-83) for all of Block 1 of the Anasazi Holdings, Carver County, Minnesota.

The following graphic exhibits shall serve as the general guide for development of the Anasazi Holdings (Cantissimo) area:

1. Traffic Analysis Memo (pgs 1-12), submitted by Swing Traffic Solutions, dated November 4, 2021
2. Existing Conditions Plan, submitted by Premier Land Surveying, dated May 23, 2018
3. Boundary & Topographic Survey, submitted by Premier Land Surveying, dated May 17, 2017
4. Previous Concept Excavation Area Plan (pg A1.2), submitted by Jim Mackey Architect, dated December 7, 2021
5. Aerial Site Exhibit, submitted by Jim Mackey Architect, dated December 7, 2021
6. Context Map/Site Influences (pg A1.4), submitted by Jim Mackey Architect, dated December 7, 2021
7. Site Plan (pg A1.1), submitted by Jim Mackey Architect, dated March 21, 2022
8. Landscape Plan (pg A1.2), submitted by Jim Mackey Architect, dated March 22, 2022
9. Lighting Plan (pg A1.3), submitted by Jim Mackey Architect, dated March 22, 2022
10. Building South 100' Setback Exhibit (pg A1.8), submitted by Jim Mackey Architect, dated March 21, 2022
11. Firetruck Turning Movements, submitted by Demarc Land Surveying & Engineering, dated March 22, 2022

12. Preliminary Plat, submitted by Demarc Land Surveying & Engineering, dated March 29, 2022
13. Preliminary Title Sheet (pg C1), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
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19. Preliminary Stormwater Pollution Prevention Plan (pg C10), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
20. Preliminary Stormwater Pollution Prevention Plan Notes, (pg C11), submitted by Demarc Land Surveying & Engineering, dated March 22, 2022
21. Building Floor Plan (pg A2.1), submitted by Jim Mackey Architect, dated December 7, 2021
22. Exterior Elevations (pg A3.1), submitted by Jim Mackey Architect, dated December 7, 2021
23. Renderings (pg A3.2), submitted by Jim Mackey Architect, dated December 7, 2021

Section II. **PRD-83 District regulations.** Permitted uses and regulations applicable to the PRD-83 District (Cantissimo) is hereby amended to read as follows:

A. Intent

The intent of PRD-83 is to create a residentially compatible area that is generally low traffic generating and sensitive to the existing wooded nature of the site.

B. Permitted Uses

Permitted uses shall be the following:

1. Lot 1, Block 1, Anasazi Holdings:

a) Assisted Living and Memory Care facility up to a maximum of 32 dwelling units

C. Accessory Uses

Customary accessory uses incidental to the foregoing principal use, including but not limited to the following:

1. Off street parking and loading facilities as regulated by Section 15.28.030 of the zoning ordinance.
2. Signs as regulated by Section 15.32 of the Zoning Ordinance

D. <u>Building Setbacks</u>

Minimum building setbacks shall be as follows:

1. From centerline of Hundertmark Road: 100 feet
2. From centerline of Pioneer Trail: 100 feet
3. From South Property Line: 20 feet
4. Interior Property Lines: 10 feet

Minimum parking setbacks shall be as follows:

1. From Right-of-Way (ROW): 10 feet
2. From South Property Line: 10 feet
3. Interior Property Lines: 5 feet

<u>Section III</u>. <u>Effective Date.</u> This Ordinance shall be in full force and effect from and after its date of passage, adoption, and publication according to law.

Passed and adopted by the City Council of the City of Chaska, Minnesota this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Deputy Clerk

City of Chaska
Memorandum

To: **Planning Commission**
From: **Matt Clark, City Engineer**
Date: **April 13, 2022**
Subject: **Cantissimo of Chaska – Assisted Living Preliminary Plat**

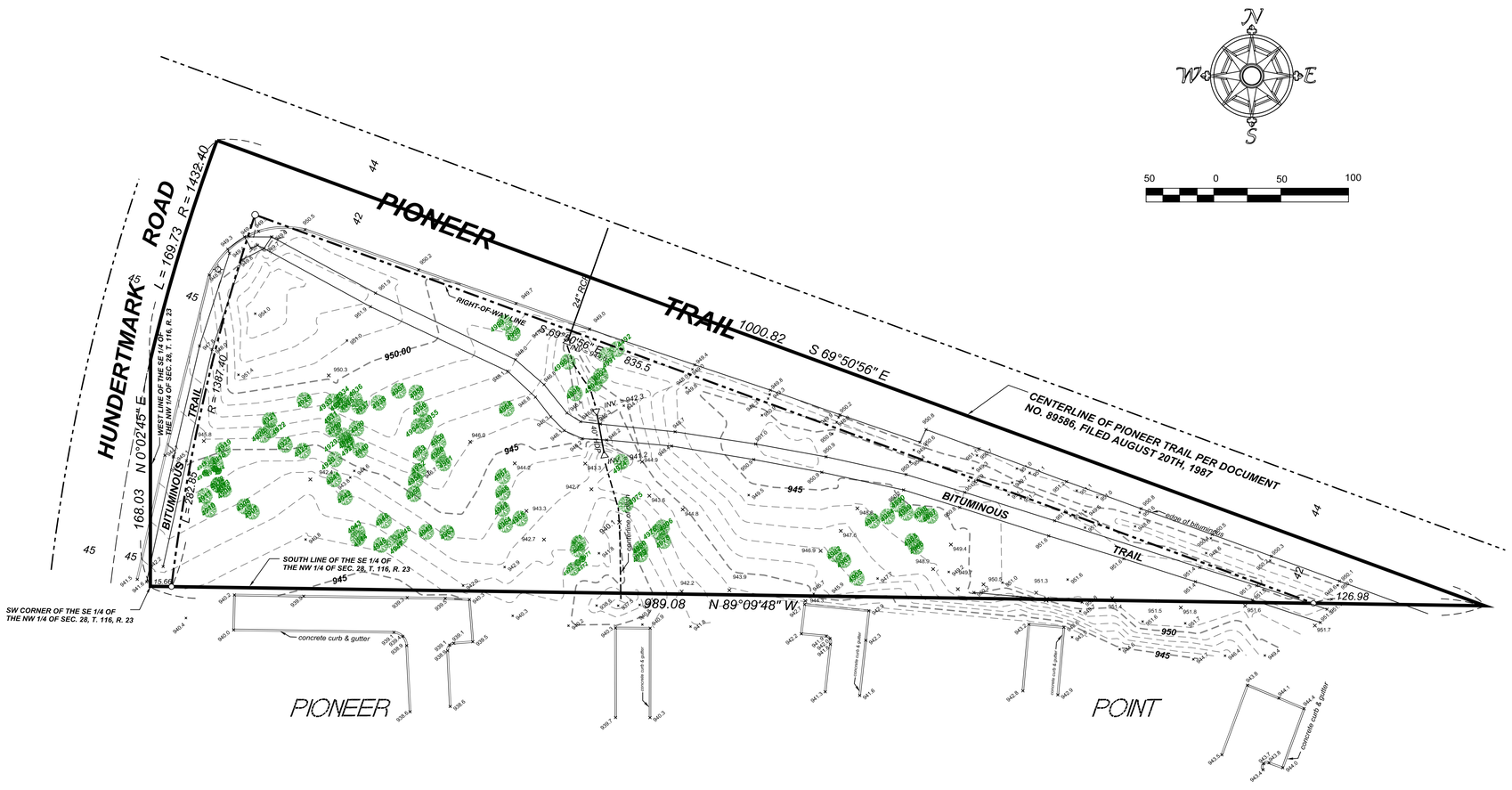
The concept plan development of the new site proposes a new senior living facility building and parking lot along with site amenities. The site plan proposes a full access onto Hundertmark which will provide a new southbound left turn lane. Hundertmark and Pioneer Trail are regional and local collector roads that require agency design standards are met with approvals. An engineered plan that outlines the improvements is needed with the final plans. With the berm that exists along Hundertmark, the new entrance will need to be evaluated to ensure proper sight lines can be accommodated.

From a storm water perspective, a stormwater management plan along with a grading and drainage plan is required. The grading plan must meet both the City and watershed requirements prior to grading occurring. The utility plans will need to be coordinated with staff. The site improvements need to accommodate appropriate drainage and utility easements to remain unrestricted.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300

Topographic and Tree Inventory Survey

~ for ~ Lake West Development, LLC



Species List	ID	DBH	Condition	Notes
Bur oak	4999	7	8	
Hackberry	4998	7	6	
Bur oak	4996	8	5	
Eastern cottonwood	4995	25	7	
Eastern cottonwood	4994	23	7	
Box elder	4993	7	5	
Box elder	4992	10	5	
Box elder	4991	10	5	
Box elder	4990	7	5	
Hackberry	4989	11	6	
American elm	4988	23	2	Dangerous tree should be removed
Bur oak	4987	7	4	
Box elder	4986	15	3	Dangerous tree should be removed
Box elder	4985	18	2	Dangerous tree should be removed
Bur oak	4984	6	6	
Bur oak	4983	8	6	
American elm	4982	8	4	
White oak	4981	40	1	Dangerous tree should be removed
American elm	4980	10	5	
American elm	4979	13	5	
American elm	4978	7	5	
Bur oak	4976	34	5	
Box elder	4975	12	5	
Box elder	4974	12	4	
Bur oak	4973	7	4	
Bur oak	4972	42	7	
Bur oak	4971	10	4	
Bur oak	4970	7	4	
Bur oak	4969	9	4	
Bur oak	4968	33	7	
White oak	4967	6	7	
Bur oak	4966	34	5	
Eastern red cedar (junipe	4965	2	7	
Eastern red cedar (junipe	4964	2	7	
White oak	4963	7	7	
White oak	4962	7	6	
White oak	4961	9	6	
Green ash (red ash)	4960	7	7	
White oak	4959	8	6	
Box elder	4958	7	5	
American elm	4957	13	6	
American elm	4956	9	6	
American elm	4955	9	5	
Bur oak	4954	35	3	
White oak	4953	6	8	
American elm	4952	7	5	
Bur oak	4951	27	6	
Green ash (red ash)	4950	6	7	
American elm	4949	8	5	
Bur oak	4948	28	3	Dangerous tree should be removed
Bur oak	4947	22	3	Dangerous tree should be removed
American elm	4946	6	5	
American elm	4945	6	3	Dangerous tree should be removed
American elm	4944	6	4	
Bur oak	4943	28	3	
American elm	4942	7	5	
American elm	4941	7	3	Dangerous tree should be removed
Bur oak	4940	40	1	
American elm	4939	10	5	
White oak	4938	6	7	
White oak	4937	6	7	
White oak	4936	6	7	
White oak	4935	6	4	
White oak	4934	6	4	
White oak	4933	7	7	
White oak	4932	6	4	
Box elder	4931	8	5	
White oak	4930	29	2	Dangerous tree should be removed
White oak	4929	8	5	
White oak	4928	30	5	
Bur oak	4927	20	5	
Box elder	4926	7	4	
American elm	4925	6	4	
White oak	4924	6	7	
White oak	4923	53	1	Dangerous tree should be removed
White oak	4922	6	2	Dangerous tree should be removed
White oak	4921	6	2	Dangerous tree should be removed
American elm	4920	7	5	
White oak	4919	6	6	
White oak	4918	6	6	
American elm	4917	7	5	
White oak	4916	7	5	
American elm	4915	8	5	
White oak	4914	9	5	
Bur oak	4913	25	7	
Bur oak	4912	28	7	
Box elder	4911	10	5	
American elm	4910	6	4	
Bur oak	4909	26	7	
Bur oak	4908	33	0	Dangerous tree should be removed
American elm	4907	7	4	
Box elder	4906	8	4	
Hackberry	4905	7	5	

NOTE: Tree inventory data furnished by Soil Investigation & Design, INC.

LEGEND

- Spot Elevation
- Fire Hydrant
- Survey Control Point
- Set 1/2" X 14" rebar marked with cap no. 22703
- Contour Line
- Deciduous Tree

I hereby certify that this survey was prepared by me or under my direct supervision and that I am a duly licensed Professional Land Surveyor under the laws of the State of Minnesota.

Steven V. Ische | 22703 | 05/23/18

Steven V. Ische | License No. | Date

PROJ. #1577-00

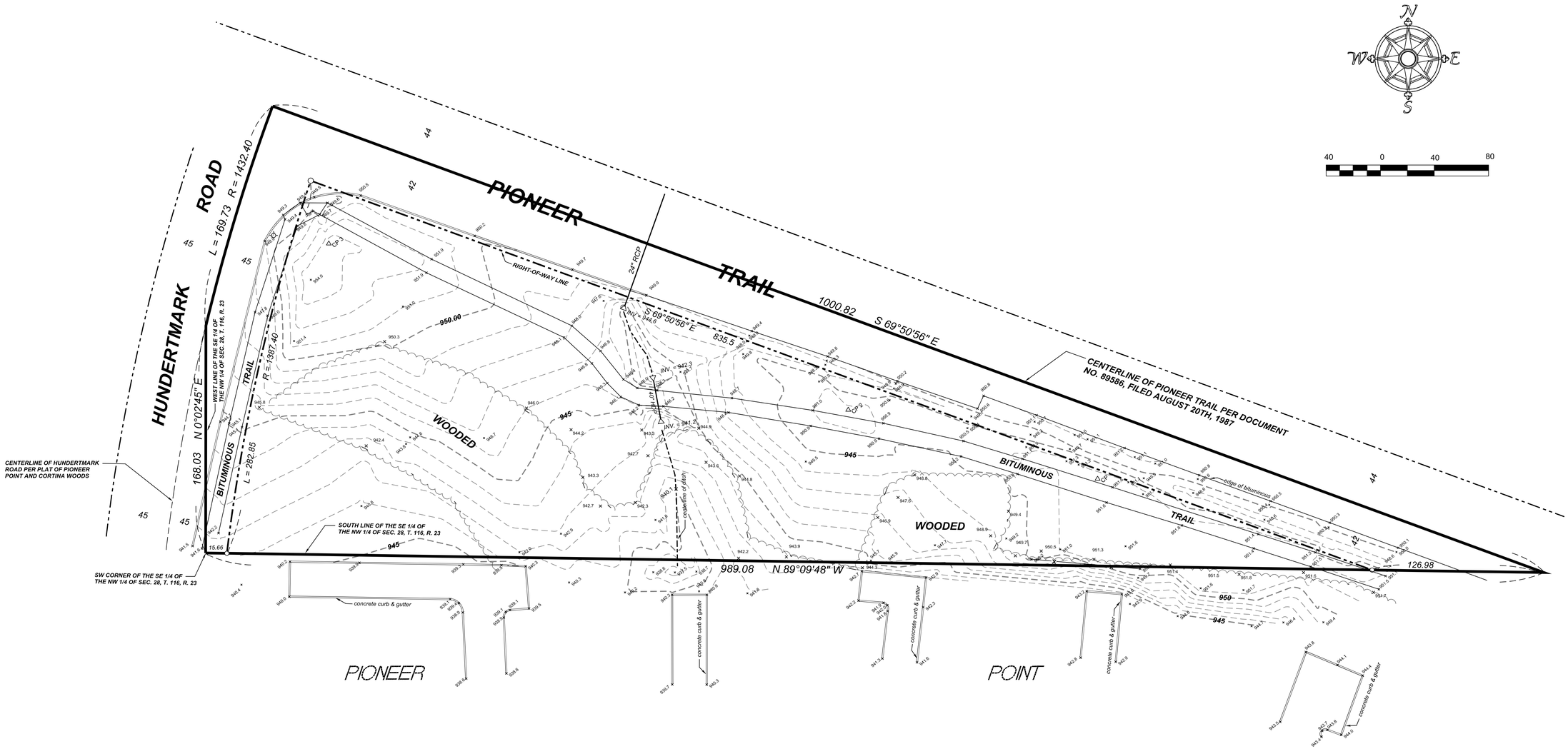
EXISTING CONDITIONS PLAN

PREMIER LAND SURVEYING, LLC

1600 Arboretum Blvd., Suite 203
Victoria, MN 55386
952-443-3010

Boundary & Topographic Survey

~ for ~ Molnau Family LLLP



I hereby certify that this survey was prepared by me or under my direct supervision and that I am a duly licensed Professional Land Surveyor under the laws of the State of Minnesota.

Steven V. Ische | 22703 | 05/17/17

Steven V. Ische | License No. | Date

PROJ. #1481-00

LEGEND	
×	Spot Elevation
⊖	Fire Hydrant
△	Survey Control Point
○	Set 1/2" X 14" rebar marked with cap no. 22703
– – –	Contour Line

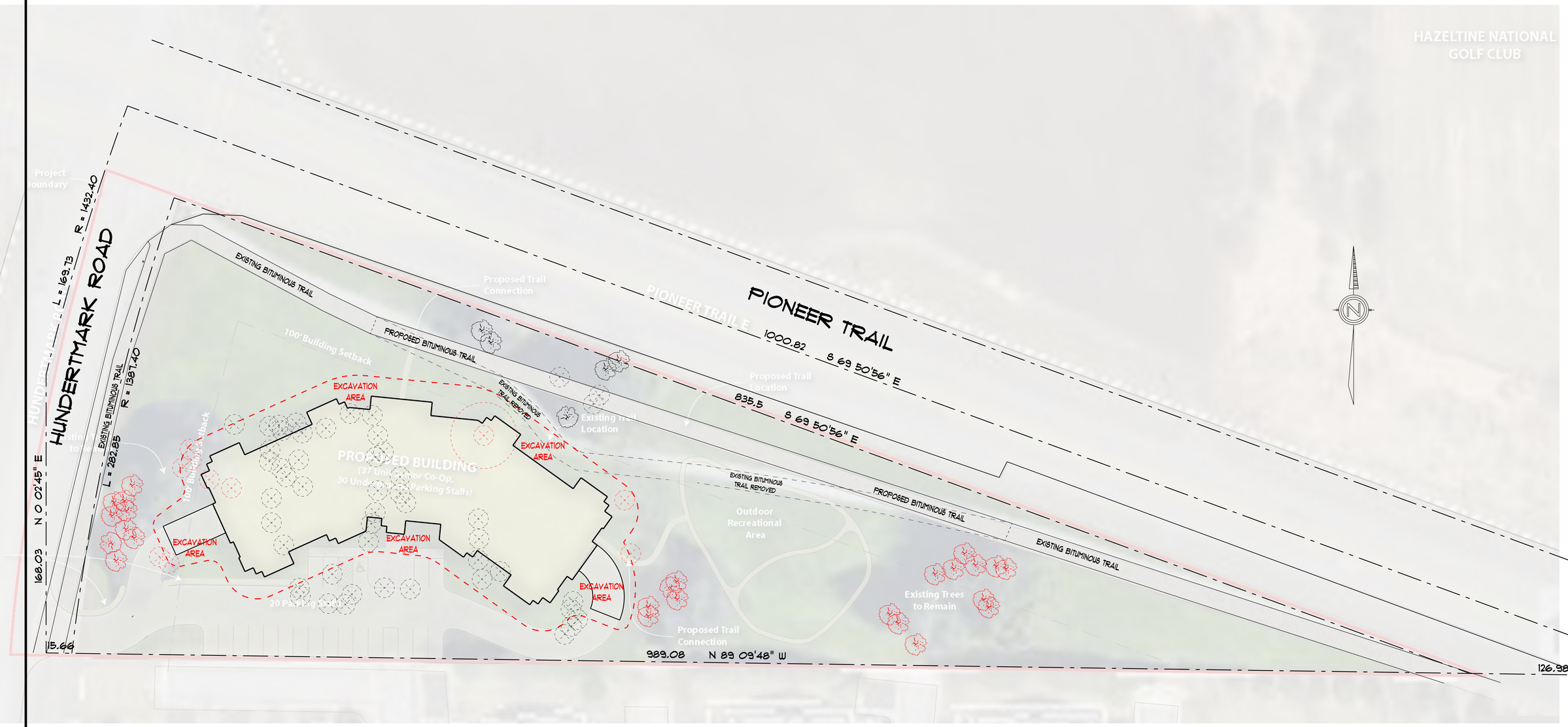
DESCRIPTION OF PROPERTY SURVEYED::

That part of the Southeast Quarter of the Northwest Quarter (SE 1/4 of NW 1/4) Section 28, Township 116, Range 23 lying southerly of the centerline of Pioneer Trail (County Road 14) and lying easterly of Hundertmark Road.

NOTE: This survey was prepared without the benefit of a title commitment. All easements of record may not be shown.

PREMIER LAND SURVEYING, LLC

1600 Arboretum Blvd., Suite 203
Victoria, MN 55386
952-443-3010



ADJACENT PROPERTY:
PIONEER POINTE
Chaska, MN 55318

NOTE:
EXISTING TREES TO REMAIN AND EXISTING TREES TO BE REMOVED SHOWN IN RED REPRESENT THE 35 TREES THAT STAFF HAS MARKED AS PREFERRABLY PRESERVED.

1 A1.1

PREVIOUS CONCEPT EXCAVATION AREA PLAN

SCALE 1" = 30.0'

0 5 10 15 20 30 40 50 60 80 100

SUBJECT PROPERTY:
SOUTHEAST CORNER OF PIONEER TRAIL AND HUNDERTMARK ROAD
CHASKA, MN 55318
PID# 300280330
(+2.71 ACRES, +118,048 SQ.FT.)

JIM MACKEY ARCHITECT

JIM MACKEY ARCHITECT
1723 LaFond Avenue
St. Paul, MN 55104
Jim Mackey
Office 651-644-0869
registration # 23018
Drafting by:
Todd Ofthun
Office 763-424-3676
Cell 952-934-8776
todd@tcodesign.net

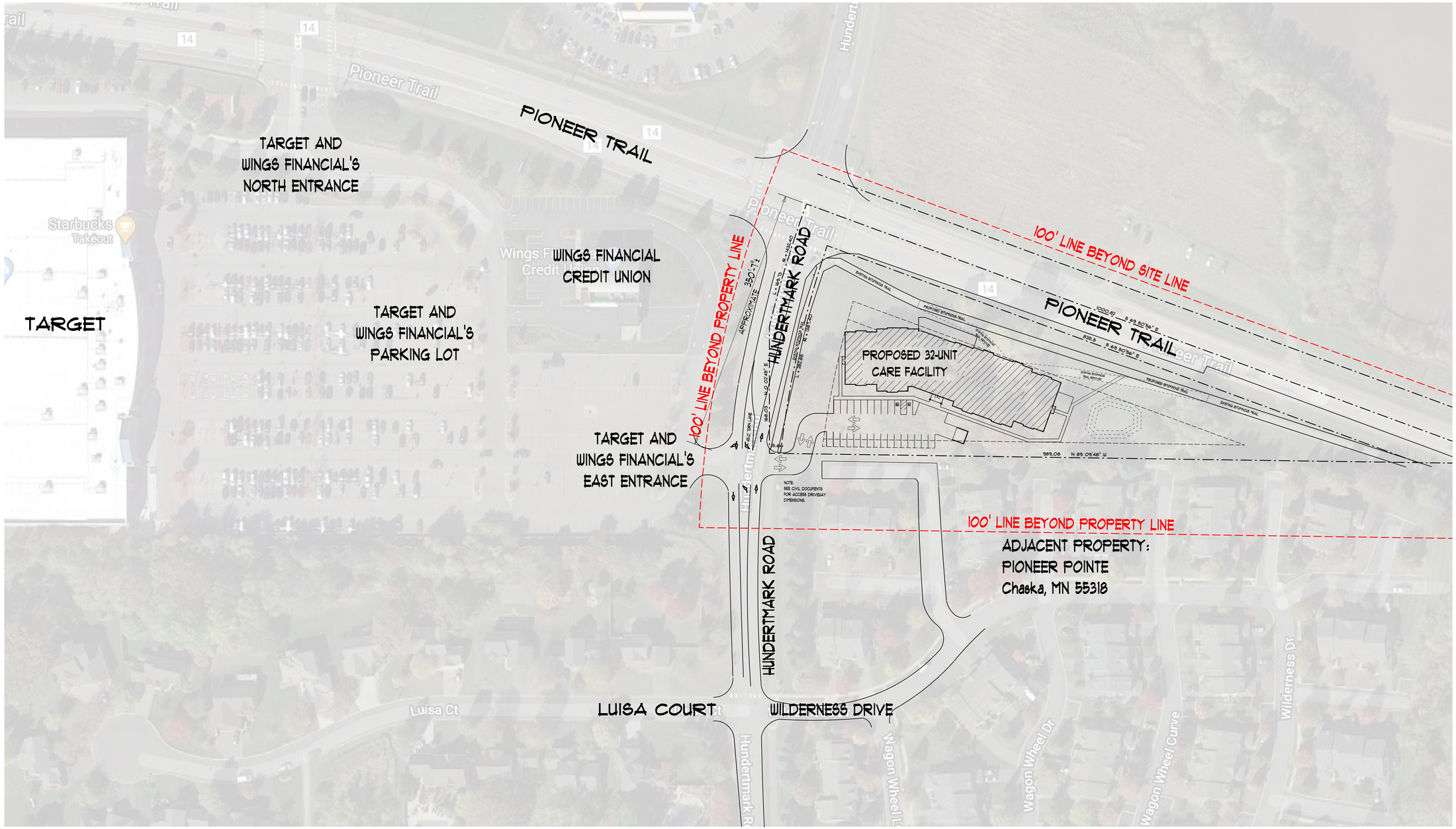
Plan Date
PP APPL. 12-1-21

CANTIGNIMO OF CHASKA

PID# 300280330 (PIONEER TRAIL AND HUNDERTMARK ROAD), CHASKA

TCO DESIGN
drafting and home design
P.O. Box 47130
Plymouth, MN 55447
dedication to excellence
Prepared by:
Todd Ofthun
Office 763-424-3676
Cell 952-934-8776
todd@tcodesign.net

Design #
tco202104
EXCAVATION EXHIBIT
A1.4



1 A1.3

AERIAL SITE EXHIBIT

SCALE 1" = 150.0'

0 20 40 60 80 100 150 200 300

SUBJECT PROPERTY:
SOUTHEAST CORNER OF PIONEER TRAIL
AND HUNDERTMARK ROAD
CHASKA, MN 55318
PID# 300280330
(~2.71 ACRES, ~118,048 SQ.FT.)

JIM MACKEY ARCHITECT

JIM MACKEY ARCHITECT
1723 LaFond Avenue
St. Paul, MN 55104

Jim Mackey
Office 651-644-0869

registration # 23018

Drafting by
Todd Ofsthun
Office 763-424-3676
Cell 952-854-8276
todd@tcodesign.net

Plan Date
PP APPL. 12-1-21

CANTISSIMO OF CHASKA
PID# 300280330 (PIONEER TRAIL AND HUNDERTMARK ROAD), CHASKA

TCO DESIGN
drafting and home design
P.O. Box 41730
Plymouth, MN 55441
dedication to excellence
Prepared by
Todd Ofsthun
Office 763-424-3676
Cell 952-854-8276
todd@tcodesign.net

Design #
tco202104
AERIAL SITE OVERVIEW
A1.5

Context Map / Site Influences



JIM MACKEY ARCHITECT

JIM MACKEY ARCHITECT
1123 LaFond Avenue
St. Paul, MN 55104
Jim Mackey
Office 651-644-0869
registration # 23018
Drafting by
Todd Ofethun
Office 763-424-3676
Cell 952-854-8716
todd@tcodesign.net

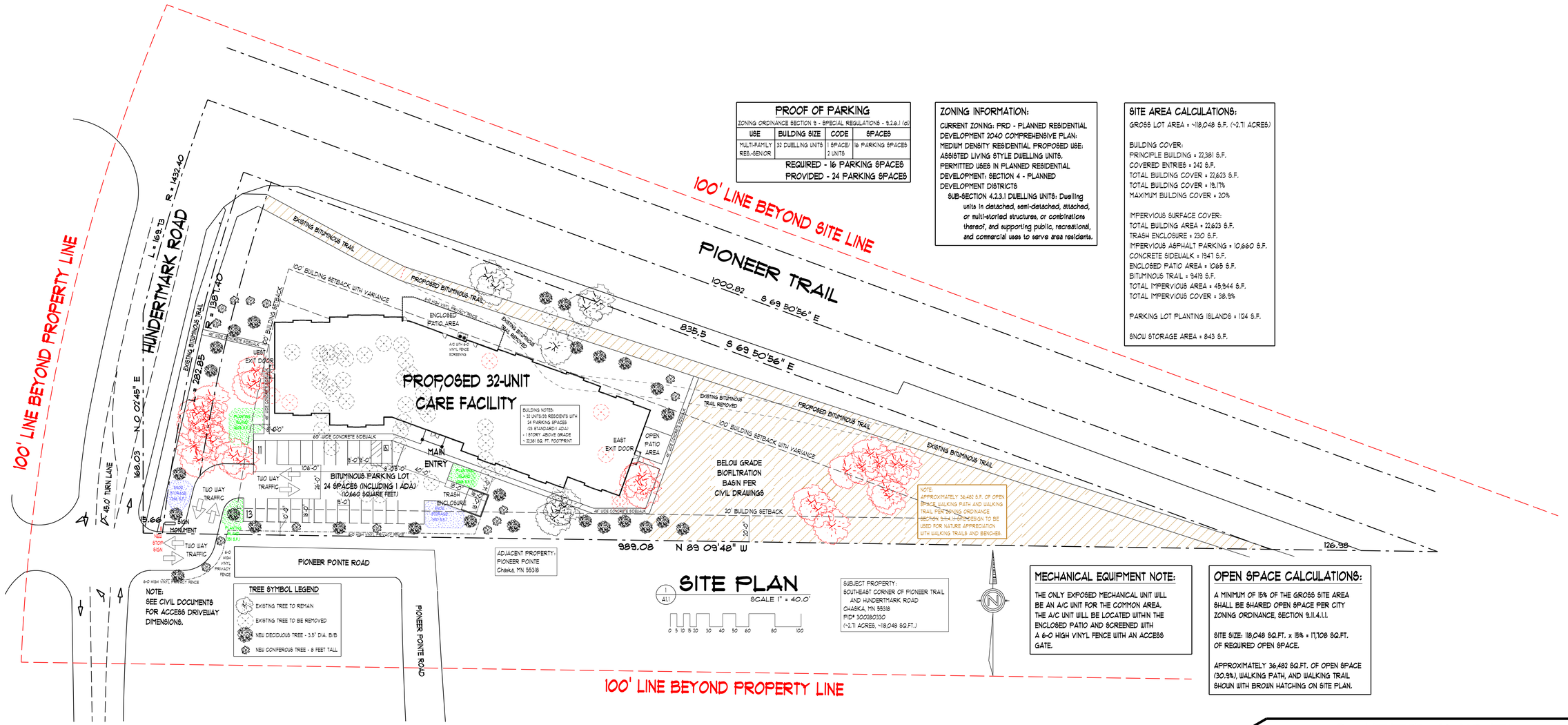
Plan Date
PP APPL. 12-1-21

CANTIGIMO OF CHASKA
PID# 300280330 (PIONEER TRAIL AND HUNDERTMARK ROAD), CHASKA

TCO DESIGN
drafting and home design
P.O. Box 47190
Plymouth, MN 55447
dedication to excellence
Prepared by
Todd Ofethun
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Design #
tco202104

A1.6



PROOF OF PARKING

ZONING ORDINANCE SECTION 9 - SPECIAL REGULATIONS - 9.2.6.1 (d)

USE	BUILDING SIZE	CODE	SPACES
MULTI-FAMILY RES.-SENIOR	32 DWELLING UNITS	1 SPACE/ 2 UNITS	16 PARKING SPACES
REQUIRED - 16 PARKING SPACES			
PROVIDED - 24 PARKING SPACES			

ZONING INFORMATION:

CURRENT ZONING: PRD - PLANNED RESIDENTIAL DEVELOPMENT 2040 COMPREHENSIVE PLAN: MEDIUM DENSITY RESIDENTIAL PROPOSED USE: ASSISTED LIVING STYLE DWELLING UNITS. PERMITTED USES IN PLANNED RESIDENTIAL DEVELOPMENT: SECTION 4 - PLANNED DEVELOPMENT DISTRICTS

SUB-SECTION 4.2.3.1 DWELLING UNITS: Dwelling units in detached, semi-detached, attached, or multi-storied structures, or combinations thereof, and supporting public, recreational, and commercial uses to serve area residents.

SITE AREA CALCULATIONS:

GROSS LOT AREA = ~118,048 S.F. (~2.71 ACRES)

BUILDING COVER:
PRINCIPLE BUILDING = 22,381 S.F.
COVERED ENTRIES = 242 S.F.
TOTAL BUILDING COVER = 22,623 S.F.
TOTAL BUILDING COVER = 19.17%
MAXIMUM BUILDING COVER = 20%

IMPERVIOUS SURFACE COVER:
TOTAL BUILDING AREA = 22,623 S.F.
TRASH ENCLOSURE = 230 S.F.
IMPERVIOUS ASPHALT PARKING = 10,660 S.F.
CONCRETE SIDEWALK = 1947 S.F.
ENCLOSED PATIO AREA = 1065 S.F.
BITUMINOUS TRAIL = 9419 S.F.
TOTAL IMPERVIOUS AREA = 45,944 S.F.
TOTAL IMPERVIOUS COVER = 38.9%

PARKING LOT PLANTING ISLANDS = 1124 S.F.

SNOW STORAGE AREA = 843 S.F.

MECHANICAL EQUIPMENT NOTE:

THE ONLY EXPOSED MECHANICAL UNIT WILL BE AN A/C UNIT FOR THE COMMON AREA. THE A/C UNIT WILL BE LOCATED WITHIN THE ENCLOSED PATIO AND SCREENED WITH A 6-0 HIGH VINYL FENCE WITH AN ACCESS GATE.

OPEN SPACE CALCULATIONS:

A MINIMUM OF 15% OF THE GROSS SITE AREA SHALL BE SHARED OPEN SPACE PER CITY ZONING ORDINANCE, SECTION 9.11.4.1.1.

SITE SIZE: 118,048 SQ.FT. x 15% = 17,708 SQ.FT. OF REQUIRED OPEN SPACE.

APPROXIMATELY 36,482 SQ.FT. OF OPEN SPACE (30.9%), WALKING PATH, AND WALKING TRAIL SHOWN WITH BROWN HATCHING ON SITE PLAN.

SHEET INDEX:

A1.1	TITLE SHEET AND SITE PLAN
A1.2	LANDSCAPE PLAN
A1.3	LIGHTING PLAN
A1.4	EXHIBIT A - PREVIOUS CONCEPT EXCAVATION
A1.5	EXHIBIT B - AERIAL SITE EXHIBIT
A1.6	EXHIBIT C - CONTEXT MAP/SITE INFLUENCES
A1.7	EXHIBIT D - 100' VS. 125' SETBACK EXHIBIT
A1.8	EXHIBIT E - BUILDING TO SOUTH EXHIBIT
A2.1	PROPOSED BUILDING FLOOR PLAN
A3.1	PROPOSED BUILDING EXTERIOR ELEVATIONS
A3.2	PROPOSED BUILDING EXTERIOR RENDERINGS

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Jim Mackey
Office 651-644-0869

registration # 23018

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Cell 952-994-8716
todd@tcodesign.net

Plan Date
PP APPL. 1-4-22
PP APPL. 3-21-22

CANTIGNY OF CHASKA
PID# 300280330 (PIONEER TRAIL AND HUNDERTMARK ROAD), CHASKA

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Design #
tco202104
SITE PLAN
A1.1

ADDITIONAL PLANTING NOTE:

ADDITIONAL PLANTING BEDS AROUND BUILDING PERIMETER TO BE PROVIDED LIKE PICTURES PROVIDED AND LANDSCAPE PLAN TO BE PROVIDED DURING PERMIT PROCESS.

ZONING INFORMATION:

CURRENT ZONING: PRD - PLANNED RESIDENTIAL DEVELOPMENT
2040 COMPREHENSIVE PLAN: MEDIUM DENSITY RESIDENTIAL
PROPOSED USE: ASSISTED LIVING STYLE DWELLING UNITS.
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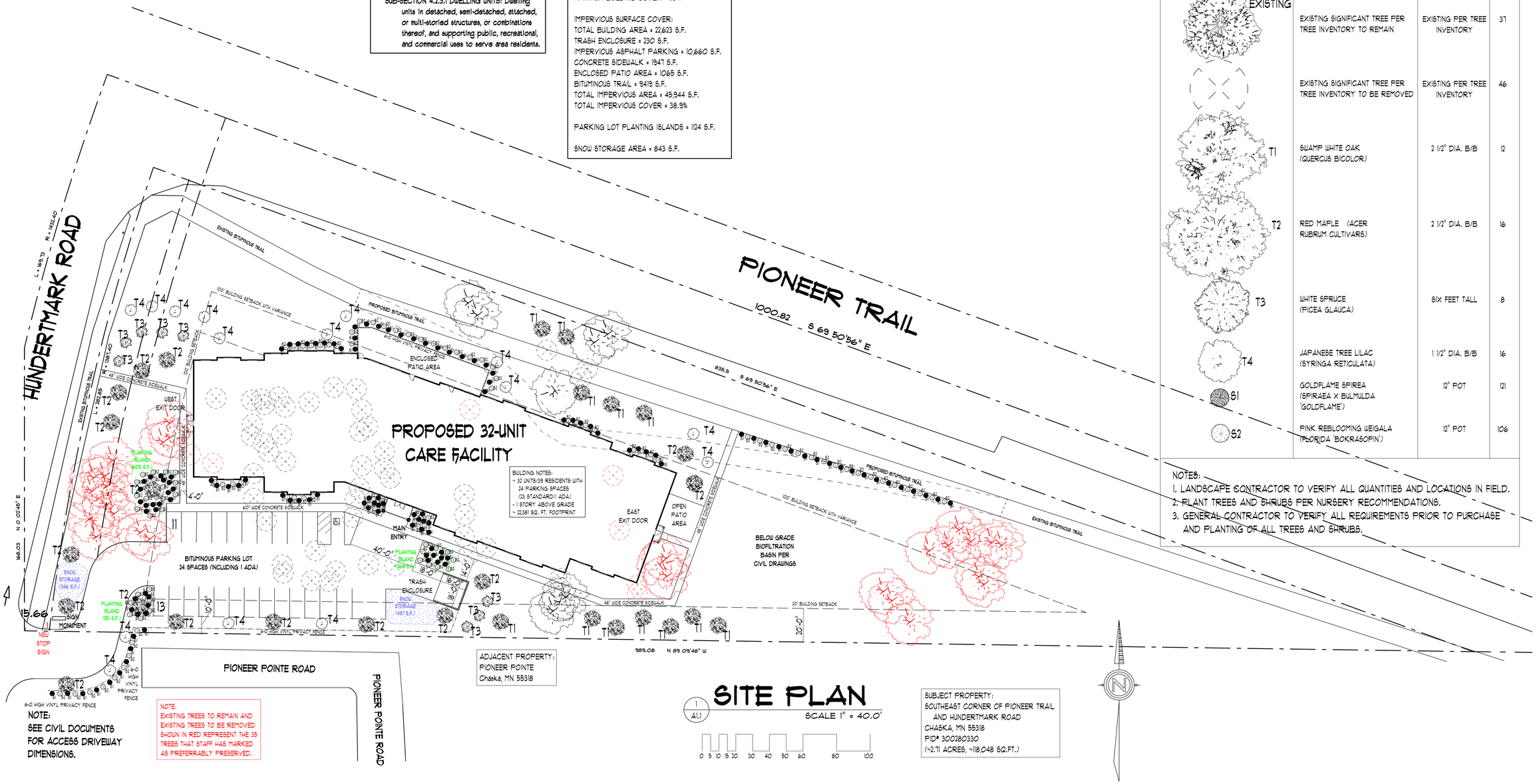
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TOTAL IMPERVIOUS AREA = 45,944 S.F.
TOTAL IMPERVIOUS COVER = 38.9%

PARKING LOT PLANTING ISLANDS = 1124 S.F.

SNOW STORAGE AREA = 843 S.F.



NOTE:
SEE CIVIL DOCUMENTS FOR ACCESS DRIVEWAY DIMENSIONS.

NOTE:
EXISTING TREES TO REMAIN AND EXISTING TREES TO BE REMOVED SHOWN IN RED REPRESENT THE 35 TREES THAT STAFF HAS MARKED AS PREFERRABLY PRESERVED.

SITE PLAN

1 / A1.1

SCALE 1" = 40.0'

0 5 10 15 20 30 40 50 60 80 100

SUBJECT PROPERTY:
SOUTHEAST CORNER OF PIONEER TRAIL AND HUNDERTMARK ROAD
CHASKA, MN 55318
PID# 300280330
(~2.71 ACRES, ~118,048 SQ.FT.)

PLANTING SCHEDULE

SYMBOL	COMMON NAME (SCIENTIFIC NAME)	SIZE/TYPE	QTY.
EXISTING	EXISTING SIGNIFICANT TREE PER TREE INVENTORY TO REMAIN	EXISTING PER TREE INVENTORY	37
	EXISTING SIGNIFICANT TREE PER TREE INVENTORY TO BE REMOVED	EXISTING PER TREE INVENTORY	46
T1	SWAMP WHITE OAK (QUERCUS BICOLOR)	2 1/2" DIA. B/B	12
T2	RED MAPLE (ACER RUBRUM CULTIVARS)	2 1/2" DIA. B/B	16
T3	WHITE SPRUCE (PICEA GLAUCA)	SIX FEET TALL	8
T4	JAPANESE TREE LILAC (SYRINGA RETICULATA)	1 1/2" DIA. B/B	16
S1	GOLDFLAME SPIREA (SPIRAEA X BULMULDA 'GOLDFLAME')	12" POT	121
S2	PINK REBLOOMING WEIGALA (FLORIDA 'BOKRASOFIN')	12" POT	106

NOTES:
1. LANDSCAPE CONTRACTOR TO VERIFY ALL QUANTITIES AND LOCATIONS IN FIELD.
2. PLANT TREES AND SHRUBS PER NURSERY RECOMMENDATIONS.
3. GENERAL CONTRACTOR TO VERIFY ALL REQUIREMENTS PRIOR TO PURCHASE AND PLANTING OF ALL TREES AND SHRUBS.

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JIM MACKEY ARCHITECT
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Jim Mackey
Office 651-644-0869
registration # 23018
Drafting by:
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Cell 952-994-8276
todd@todddesign.net

Plan Date
PP APPL. 12-1-21
PP APPL. 1-1-22
PP APPL. 3-22-22

CANTIGGIMO OF CHASKA
PID# 300280330 (PIONEER TRAIL AND HUNDERTMARK ROAD), CHASKA

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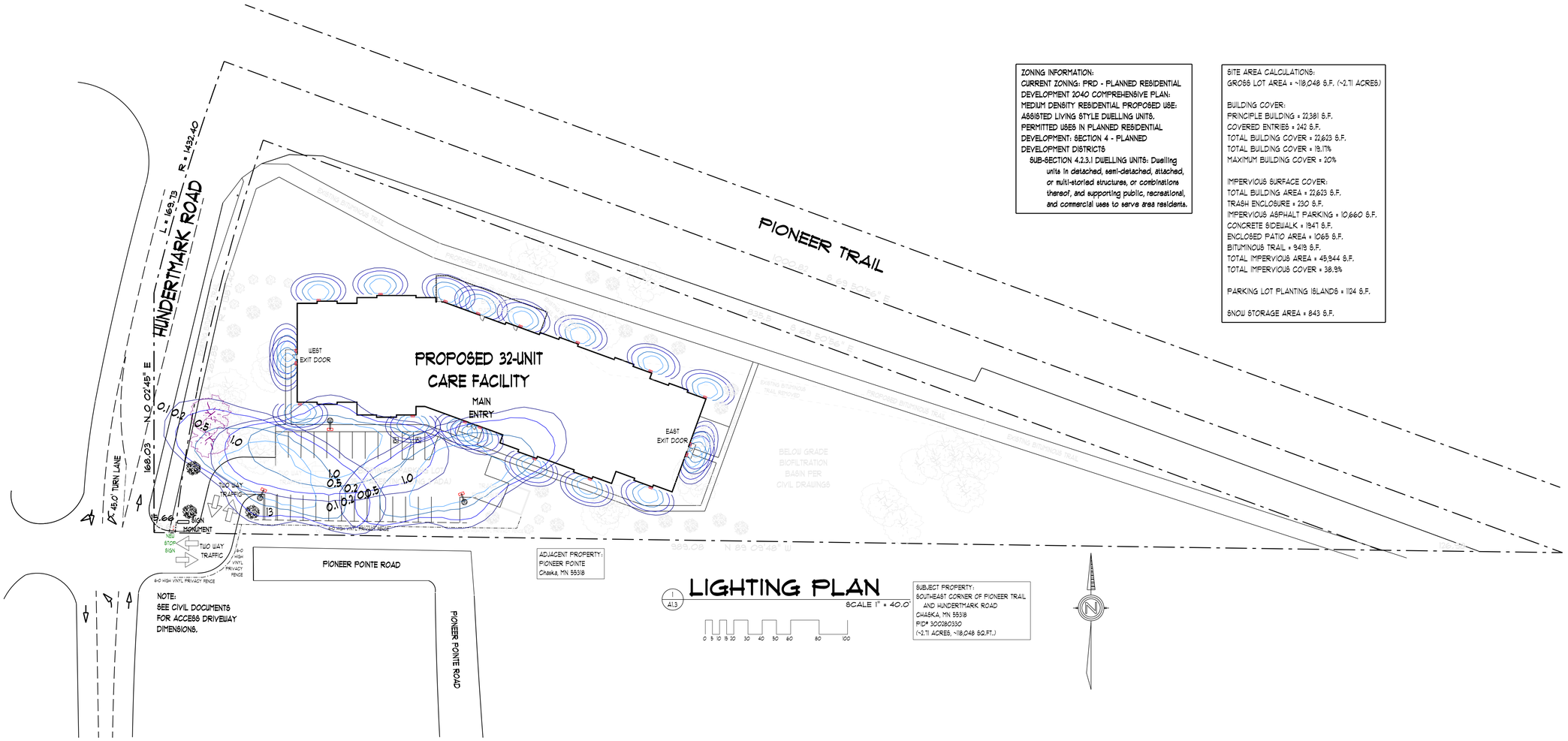
Design #
tco202104

LANDSCAPE PLAN
A1.2

LIGHTING SCHEDULE

DES.	QTY.	MANUF.	CATALOG DES.	TYPE	LIGHT RATING B	LIGHT RATING U	LIGHT RATING G	LUMENS	MOUNTING INSTRUCTIONS	DESCRIPTION
L1	9	LITHONIA LIGHTING	WST LED 2A 30K 120 DIFS	WSTM LED WALL SCONCE	B1	U0	G0	1543	WALL MOUNTED - 12" ABOVE DOOR	WSTM LED WITH 2 BOARDS, 3000K CCT, 120 VOLT, DIFFUSE GLASS LENS
L2	10	LITHONIA LIGHTING	WST LED 2A 30K 120 DIFS	WSTM LED WALL SCONCE	B1	U0	G0	1543	WALL MOUNTED - 8'-0" ABOVE GRADE	WSTM LED WITH 2 BOARDS, 3000K CCT, 120 VOLT, DIFFUSE GLASS LENS
L3	3	LITHONIA LIGHTING	KAD LED 20C 1000 30K R2 MVOLT	KAD-LED SOFT SQUARE	B2	U0	G2	6143	POLE MOUNTED - 18'-0" ABOVE GRADE	KAD LED, 20 LED, 1 AMP MVOLT DRIVER, 3000K, TYPE 2 OPTICS

NOTE: SEE LIGHTING PLAN FOR DISTANCE TO PROPERTY LINE.



NOTE:
SEE CIVIL DOCUMENTS FOR ACCESS DRIVEWAY DIMENSIONS.

ADJACENT PROPERTY:
PIONEER POINTE
Chaska, MN 55318

LIGHTING PLAN

1 / A1.3

SCALE 1" = 40.0'

0 5 10 15 20 30 40 50 60 80 100

SUBJECT PROPERTY:
SOUTHEAST CORNER OF PIONEER TRAIL AND HUNDERTMARK ROAD
CHASKA, MN 55318
PID# 300280330
(~2.71 ACRES, ~118,048 SQ.FT.)

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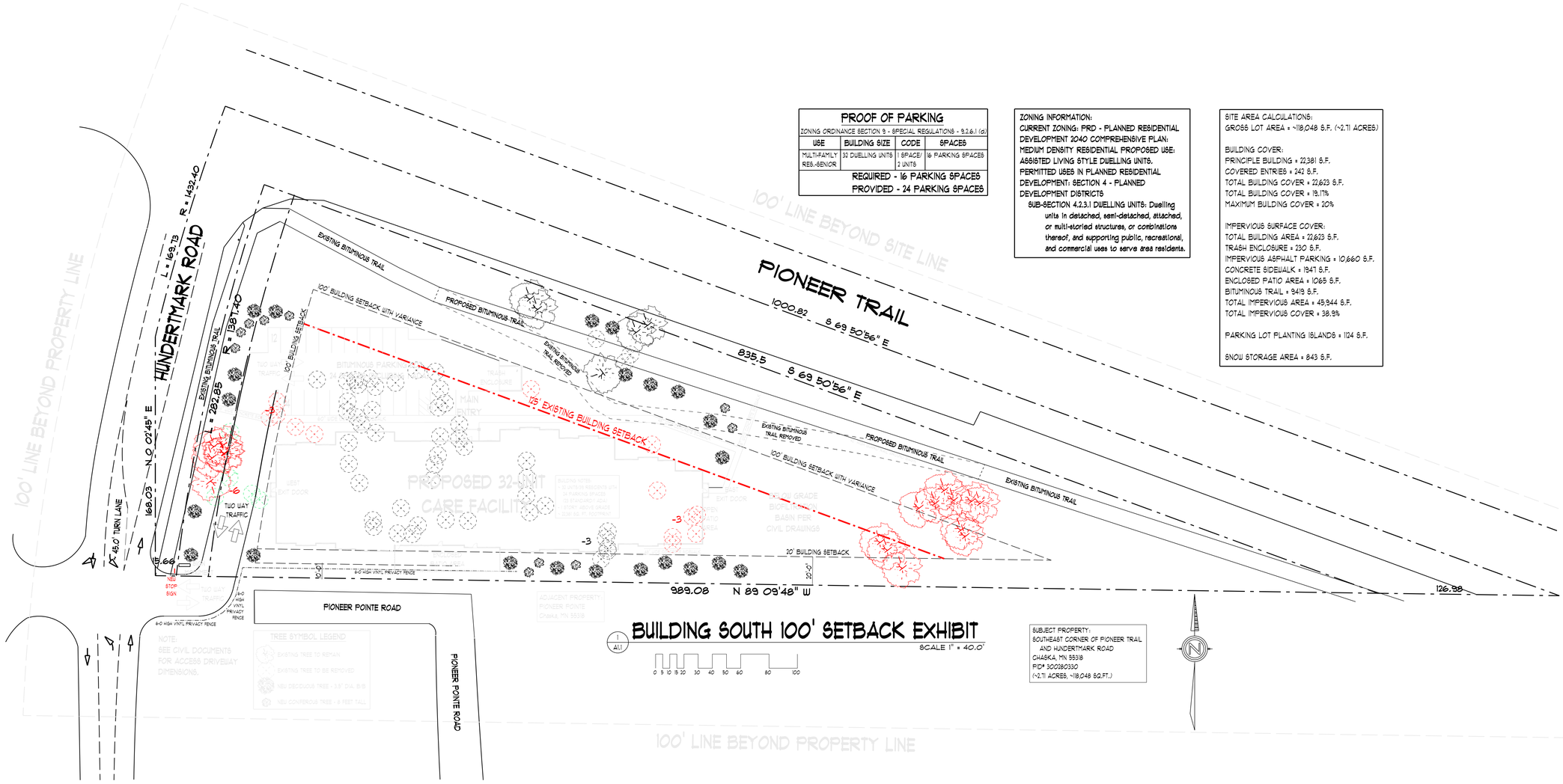
Plan Date
PP APPL. 12-4-21
PP APPL. 3-22-22

CANTIGIMO OF CHASKA
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Design #
tco202104

A1.3



BUILDING SOUTH 100' SETBACK EXHIBIT

1 / A1.1

SCALE 1" = 40.0'

0 5 10 15 20 30 40 50 60 80 100

PROOF OF PARKING			
ZONING ORDINANCE SECTION 9 - SPECIAL REGULATIONS - 9.2.6.1 (d)			
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REQUIRED - 16 PARKING SPACES			
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Plan Date
PP APPL, 3-21-22

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A1.8

HUNDERTMARK ROAD

PIONEER TRAIL

PIONEER TRAIL

0 40 80

SCALE IN FEET

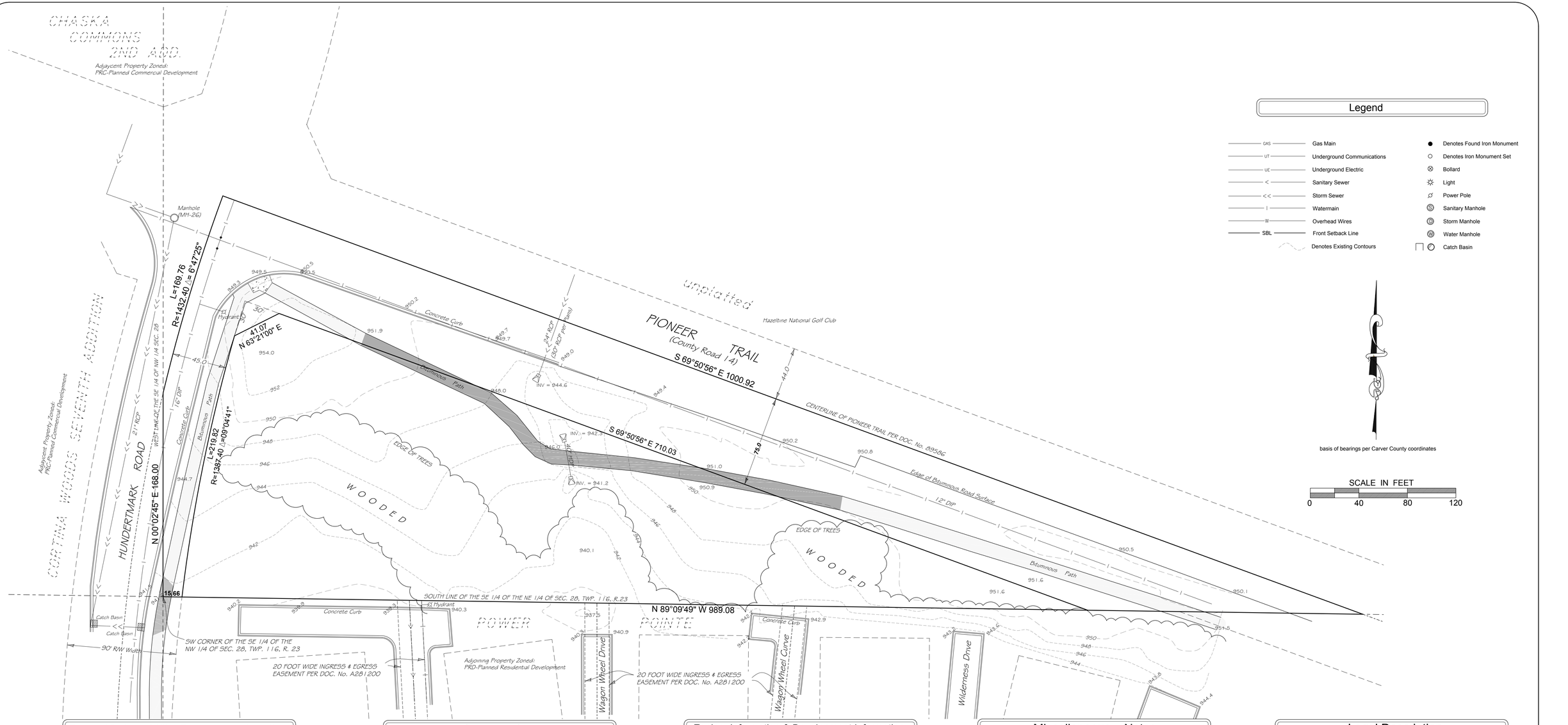
DEMARC
LAND SURVEYING & ENGINEERING

CANTISSIMO OF CHASKA
XXX HUNDERTMARK ROAD
CHASKA, MN

FIRETRUCK TURNING MOVEMENTS

EXHIBIT A

03.22.2022



Legend

- GAS — Gas Main
- UT — Underground Communications
- UE — Underground Electric
- < — Sanitary Sewer
- << — Storm Sewer
- I — Watermain
- W — Overhead Wires
- SBL — Front Setback Line
- Denotes Existing Contours
- Denotes Found Iron Monument
- Denotes Iron Monument Set
- Bollard
- Light
- Power Pole
- Sanitary Manhole
- Storm Manhole
- Water Manhole
- Catch Basin

basis of bearings per Carver County coordinates

SCALE IN FEET

0 40 80 120

Proposed Drainage & Utility Easements are shown thus:

5 5 10 R/W Line

BEING 10 FEET IN WIDTH AND ADJOINING RIGHT OF WAY LINES AND 5 FEET IN WIDTH AND ADJOINING INTERIOR LOT LINES.

Personnel

PROPERTY OWNER

Anasazi Holdings, LLC
603 Lake Street E., Suite 206
Wayzata, MN 55391
Phone: 612-325-8377
Attn: Paul Ablack

DEVELOPER

Anasazi Holdings, LLC
603 Lake Street E., Suite 206
Wayzata, MN 55391
Phone: 612-325-8377
Attn: Paul Ablack

SURVEYOR
Demarc
Surveying and Engineering
7601 73rd Avenue N.
Brooklyn Park, MN 55428
Attn: Greg Prasch
phone: 763-560-3093
fax: 763-560-3522
e-mail: gregprasch@demarcinc.com

ENGINEER:
Demarc
Land Surveying & Engineering
7601 73rd Avenue N.
Brooklyn Park, MN 55428
phone 763-560-3093
fax 763-560-3522
Attn: Jeff Prasch
jeff prasch@dmearcinc.com

Zoning Information & Development Information

Property Currently Zoned: PRD - Planned Residential Development

Zoning Ordinance Requirements:

Building Setbacks
Building setbacks from all property lines which form the perimeter of the total property in the PRD or from all exterior dedicated street right-of-way lines shall be at least 30 feet or the height of the building, whichever is greater. Minimum spacing between principal buildings shall be 25 feet.

Refer to City code for additional requirements, exceptions and modifications.

Total Number of Proposed Lots - 1

Areas:
Lot 1, Block 1 = 91,864 sq.ft (2.11 acres)
Right of Way dedication = 76,263 sq.ft (1.75 acres)

Miscellaneous Notes

1. Property Address: unassigned address, Chaska, MN
   PID No.: 300280330
2. Total Area of Parcel = 168,127 sq. ft.
3. By graphic interpretation only, this property is in Flood Zone "X" (area of minimal flooding) per FEMA panel map number 27019C0228D dated 12/21/2018.
4. Title insurance commitment showing property description and any encumbrances of record not provided, survey subject to change.
   The only easements shown are from plats of record or information provided by client.
5. Property located in Section 28, Township 116, Range 23, Carver County, Minnesota.
6. Benchmark: Elevation information by others. No field work has been completed to verify.
7. Boundary information provided by client from previous survey. Not field verified and subject to change.

Legal Description

That part of the Southeast Quarter of the Northwest Quarter (SE 1/4 of NW 1/4) Section 28, Township 116, Range 23 lying southerly of the centerline of Pioneer Trail (County Road 14) and lying easterly of Hundertmark Road.

FIELD BY: others	I certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed land Surveyor under the laws of the State of Minnesota. Prepared this 28th day of December 2021. Signed: Gregory R. Prasch Registration No. 24992	REVISION SUMMARY: 3.14.2022 County comments per letter dated 3-29-22	DEMARC LAND SURVEYING & ENGINEERING 7601 73rd Avenue North Minneapolis, Minnesota 55428 (763) 560-3093 DemarcInc.com	SURVEY FOR: Anasazi Holdings 603 Lake Street E., Suite 206 Wayzata, MN 55391		PRELIMINARY PLAT ANASAZI HOLDINGS	PROJECT: 89556C
DRAWN BY: RAG							FB No: ****
CHECKED BY: GRP							SHEET NO. 1 OF 1

G:\Survey\26-116-23\chaska assisted living\01 Surveying - 89556\01 CAD\01 Source\01 Survey Base.dwg

SITE DEVELOPMENT PLANS

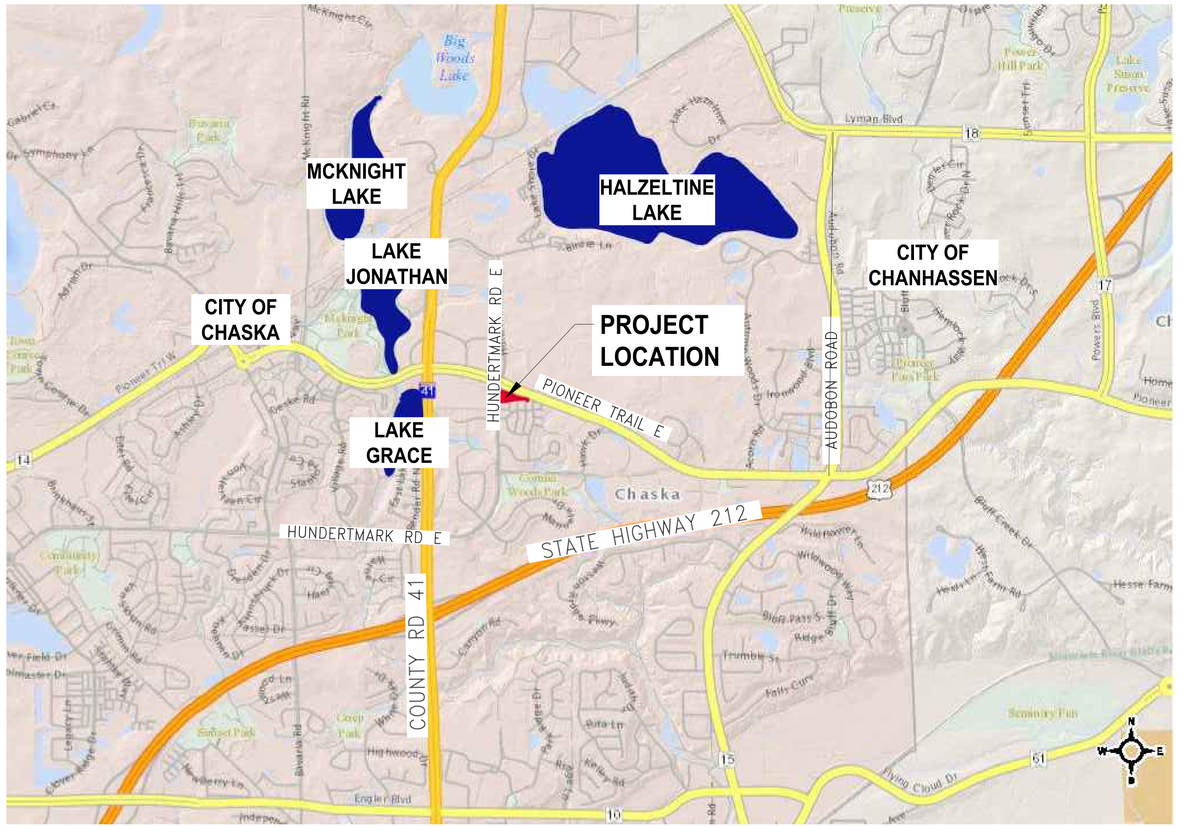
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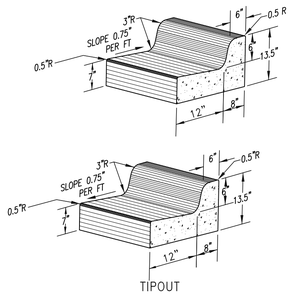
CANTISSIMO OF CHASKA

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CHASKA, MINNESOTA



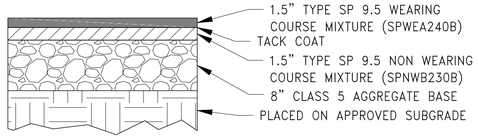
CARVER COUNTY


MCKNIGHT LAKE
HALZELTINE LAKE
LAKE JONATHAN
CITY OF CHASKA
CITY OF CHANHASSEN
PROJECT LOCATION
LAKE GRACE
HUNDERTMARK RD E
PIONEER TRAIL E
AUDUBON ROAD
HUNDERTMARK RD E
STATE HIGHWAY 212
COUNTY RD 41
Chaska
Lyman Blvd
Engler Blvd
Flying Cloud Dr
Powers Blvd
Pioneer Trl W
Big Woods Lake
Lake Simon Preserve
Pioneer Hill Park
Bluff Creek Dr
Hesse Farm Rd
Seminary Fen
Creek Park
Community Park
Sunset Park
Carver Woods Park
Pioneer Pass Park
Bluff Pass Ridge
Trumble St
Falls Curve
Highwood Dr
Camden Rd
Kerber Rd
Bavaria Rd
Bluff Creek Blvd
Willowood Way
Yellowood Ln
Jute Ln
Ridge Pkwy
Lake Hammer Dr
Lake Shore Dr
Lake Ridge Dr
Legacy Ln
Mulberry Ln
Arbor Ln
Arbor Rd
Arbor Cir
Stanton Cir
Village Rd
Bridge Rd N
Bridge Rd S
Bridge Cir
Bridge Ct
Bridge Pl
Bridge Trl
Bridge Way
Bridge Pkwy
Bridge Blvd
Bridge Ln
Bridge Dr
Bridge Rd



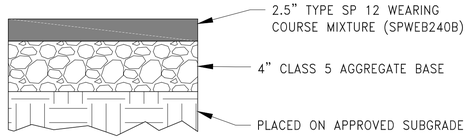
1 / C2 — B612 CURB AND GUTTER

NOT TO SCALE



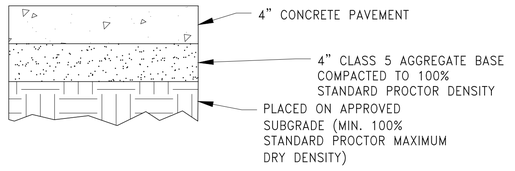
2 / C2 — BUTIMINOUS PAVEMENT

NOT TO SCALE



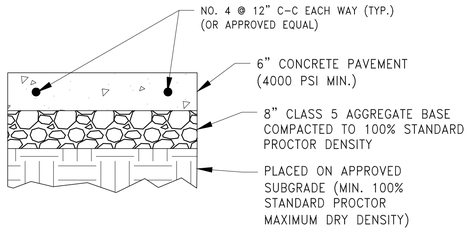
3 / C2 — BITUMINOUS PATH

NOT TO SCALE



4 / C2 — CONCRETE SIDEWALK

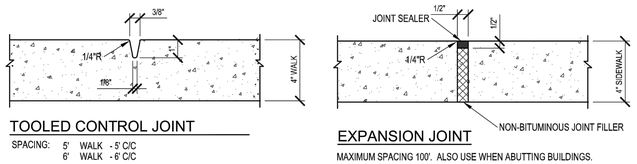
NOT TO SCALE



NOTE: CONCRETE COMPRESSIVE STRENGTH SHALL COMPLY WITH ASTM STANDARD C94. MINIMUM 28-DAY STRENGTH = 4,000 PSI

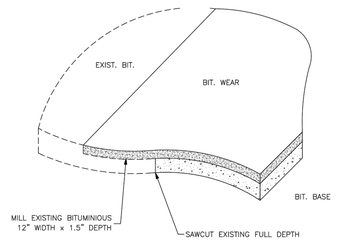
5 / C2 — CONCRETE DUMPSTER PAVEMENT

NOT TO SCALE



6 / C2 — CONCRETE JOINT DETAILS

NOT TO SCALE



7 / C2 — MATCH EXISTING BITUMINOUS

NOT TO SCALE

NOTES:

1) N/A

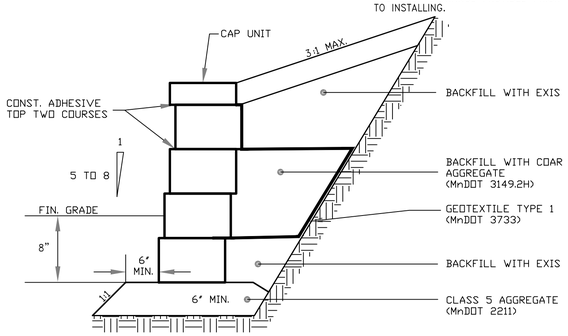
2) FILL ALL VOID AREAS IN MODULAR BLOCK UNITS WITH COARSE FILTER AGGREGATE (MnDOT 3149.2H)

3) MODULAR BLOCK UNITS MUST HAVE INTERLOCKING LIP OR PIN CONNECTIONS

4) RETAINING WALL LOCATION SHOWN PLANS.

5) CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR PROPOSED MODULAR BLOCK UNITS

6) OTHER RETAINING WALL TYPES MAY BE SUBMITTED FOR APPROVAL AND SHOP DRAWINGS PROVIDED PRIOR TO INSTALLING.



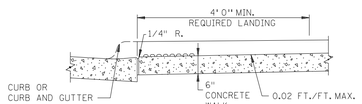
8 / C2 — RETAINING WALL

NOT TO SCALE

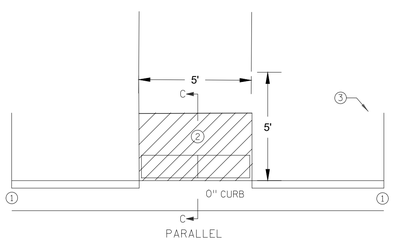
LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- X'' CURB HEIGHT



SECTION C-C
PARALLEL/DEPRESSED CORNER



NOTES:

LANDINGS SHALL BE LOCATED AT WHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN (6) BELOW.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISIONS - PROSECUTION OF WORK (ADA).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

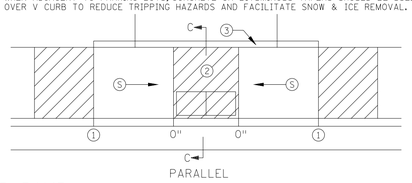
WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK. DETECTABLE WARNING SHOULD BE 6" LESS THAN THE PAR/TRAIL WIDTH. ARC LENGTH OF RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

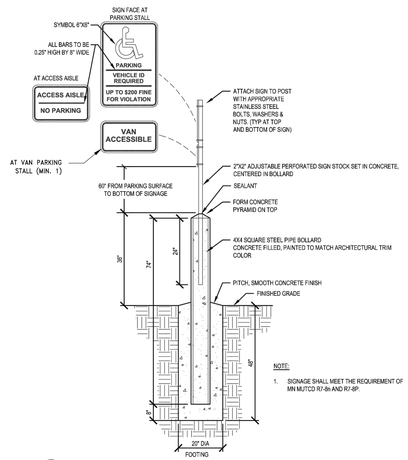
RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

1. MATCH FULL HEIGHT CURB.
2. DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
3. WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.



9 / C2 — PEDESTRIAN CURB RAMP

NOT TO SCALE

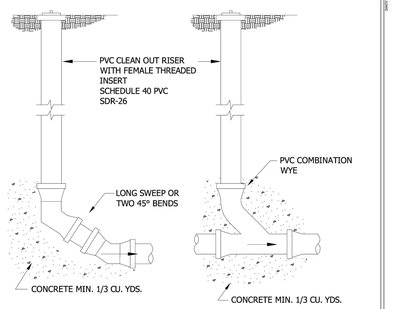


10 / C2 — ADA SIGN DETAIL

NOT TO SCALE

DESIGNED BY: JAP DRAWN BY: ABL CHECKED BY: GRP	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. JEFFREY A. PRASCH, P.E. DATE: 12.07.21 LIC. NO.: 52706	REVISIONS	DEMARC LAND SURVEYING & ENGINEERING 7601 73RD AVENUE N, BROOKLYN PARK, MN 55428 PHONE: 763.560.3093 FAX: 763.560.3522 www.Demarcinc.com	TCO DESIGN P.O. BOX 41790 PLYMOUTH, MINNESOTA 55441 763.424.3676	CANTISSIMO OF CHASKA XXX HUNDERTMARK ROAD CHASKA, MINNESOTA	PRELIMINARY DETAILS	PROJECT: 89556 SHEET NO. C2 OF C11

I:\survey\28-116-23\chasko assisted living\02 Engineering - 89556\01 CAD\05 Sheet Files\02 Details.dwg



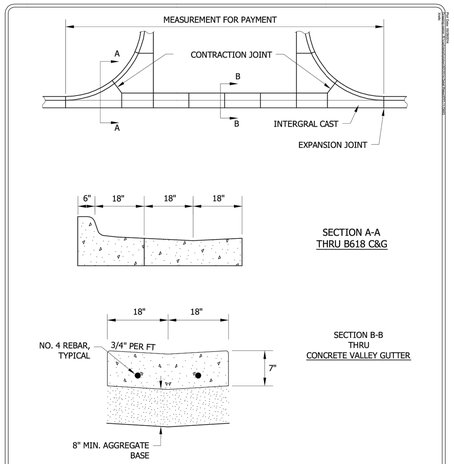
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SERVICE LINE CLEANOUTS

CHASKA, MINNESOTA

LAST REVISION: MARCH 2001

PLATE NO. SER-4



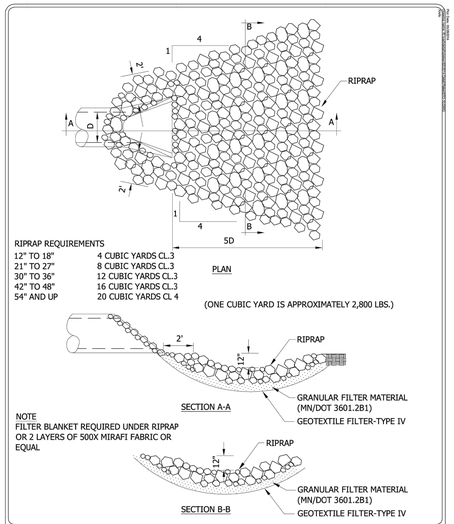
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COMMERCIAL DRIVEWAY

CHASKA, MINNESOTA

LAST REVISION: APRIL 2016

PLATE NO. STR-3



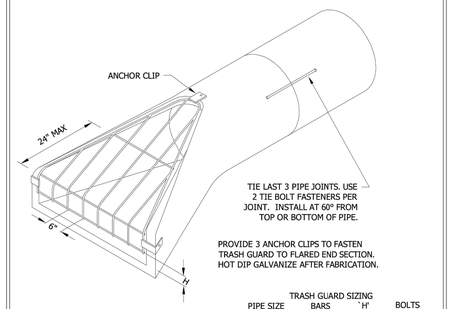
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RIPRAP AT OUTLETS

CHASKA, MINNESOTA

LAST REVISION: APRIL 2004

PLATE NO. STO-11



TRASH GUARD SIZING

PIPE SIZE	BARS	'H'	BOLTS
12"	3/4"Ø	2 1/2"	5/8"
15"	3/4"Ø	3"	5/8"
18"	3/4"Ø	4"	5/8"
21"-24"	1"Ø	4"	3/4"
27"-36"	1"Ø	5"	3/4"
42"	1"Ø	6"	3/4"
48"-54"	1 1/4"Ø	6"	1"
60"-72"	1 1/4"Ø	7"	1"
78"-90"	1 1/4"Ø	8"	1"

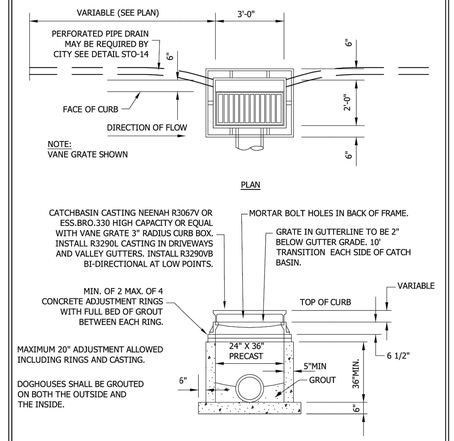
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FLARED END SECTION AND TRASH GUARD

CHASKA, MINNESOTA

LAST REVISION: FEB. 1995

PLATE NO. STO-10



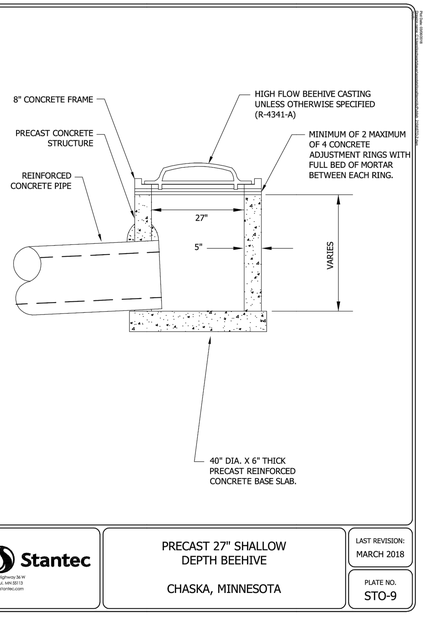
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St. Paul, MN 55113
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TYPE II CATCHBASIN

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-6



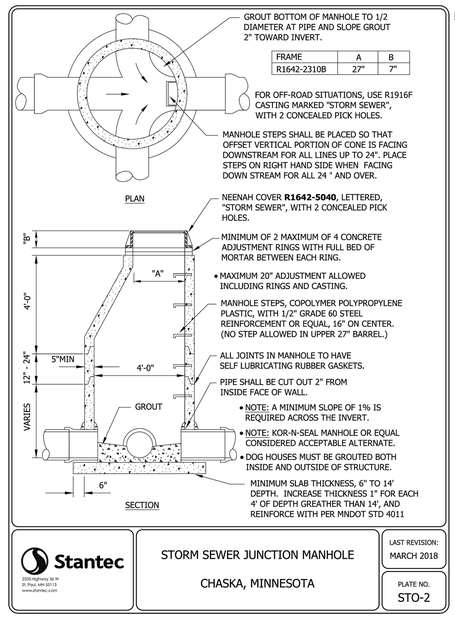
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PRECAST 27" SHALLOW DEPTH BEEHIVE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-9



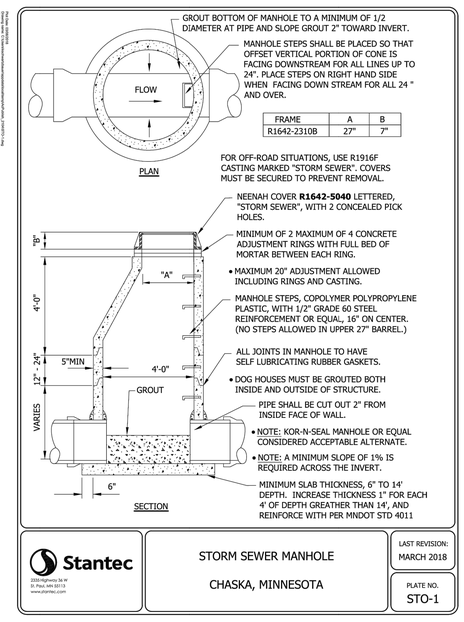
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STORM SEWER JUNCTION MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-2



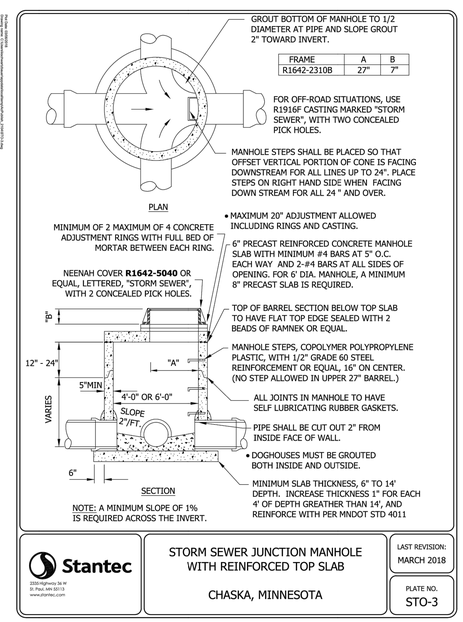
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STORM SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-1



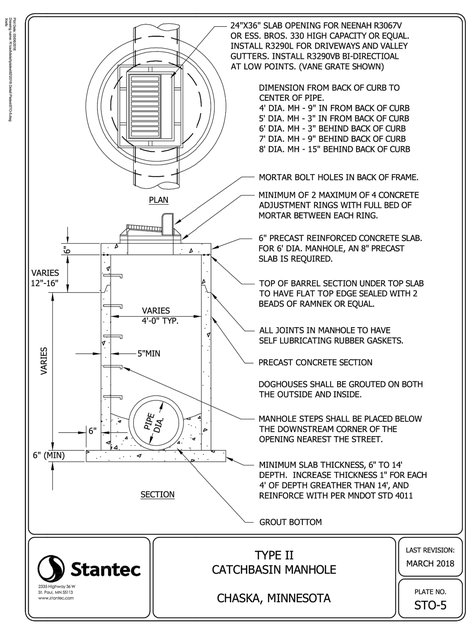
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STORM SEWER JUNCTION MANHOLE WITH REINFORCED TOP SLAB

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-3



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TYPE II CATCHBASIN MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-5

DESIGNED BY: JAP
DRAWN BY: ABL
CHECKED BY: GRP

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JEFFREY A. PRASCH, P.E.

DATE: 12.07.21 LIC. NO.: 52706

REVISIONS

DEMARC
LAND SURVEYING & ENGINEERING
7601 73RD AVENUE N, BROOKLYN PARK, MN 55428
PHONE: 763.560.3093 FAX: 763.560.3522
www.Demarcinc.com

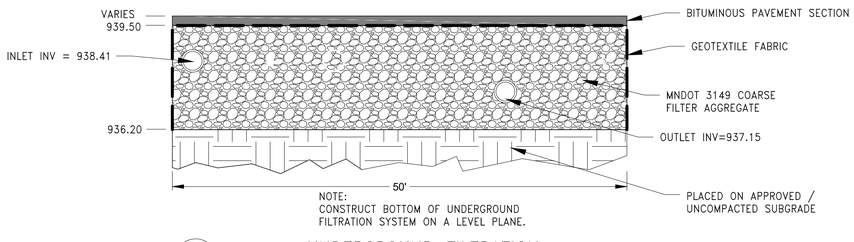
TCO DESIGN
P.O. BOX 41790
PLYMOUTH, MINNESOTA 55441
763.424.3676

CANTISSIMO OF CHASKA
XXX HUNDERTMARK ROAD
CHASKA, MINNESOTA

PRELIMINARY DETAILS

PROJECT: 89556

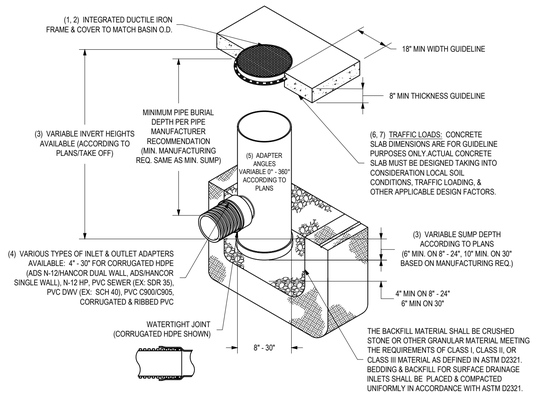
SHEET NO. C3 OF C11



NOTE:
CONSTRUCT BOTTOM OF UNDERGROUND FILTRATION SYSTEM ON A LEVEL PLANE.

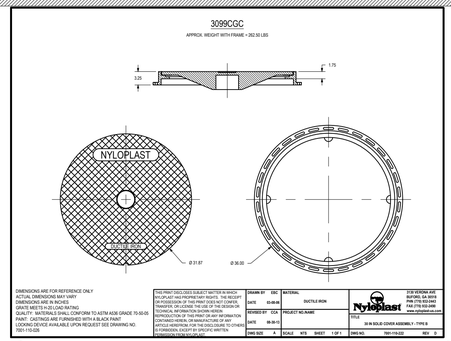
1 / C4 UNDERGROUND FILTRATION

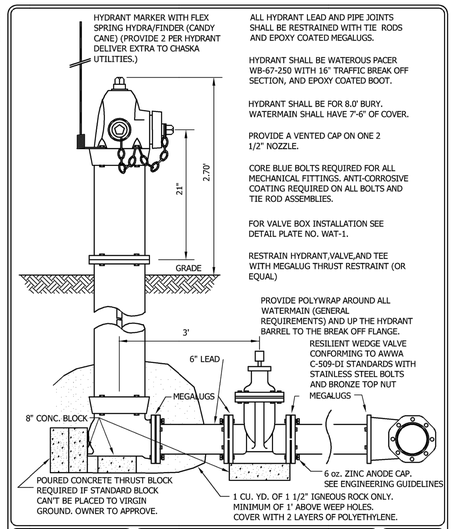
NOT TO SCALE



1. - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3. - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4. - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5. - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6. - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7. - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

1 NYLOPLAST DRAIN BASIN WITH SOLID COVER





ALL HYDRANT LEAD AND PIPE JOINTS SHALL BE RESTRAINED WITH TIE RODS AND EPOXY COATED MEGALUGS.

HYDRANT SHALL BE WATEROUS PACER WB-67-250 WITH 16" TRAFFIC BREAK OFF SECTION, AND EPOXY COATED BOOT.

HYDRANT SHALL BE FOR 8.0' BURY. WATERMAIN SHALL HAVE 7'-6" OF COVER.

PROVIDE A VENTED CAP ON ONE 2 1/2" NOZZLE.

CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

FOR VALVE BOX INSTALLATION SEE DETAIL PLATE NO. WAT-1.

RESTRAIN HYDRANT,VALVE,AND TEE WITH MEGALUG THRUST RESTRAINT (OR EQUAL)

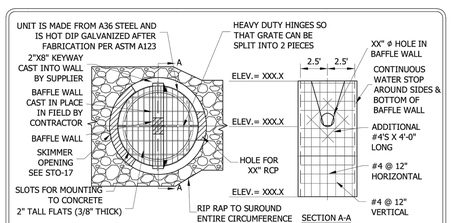
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Minneapolis, MN 55402
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WATEROUS PACER HYDRANT AND VALVE INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-2



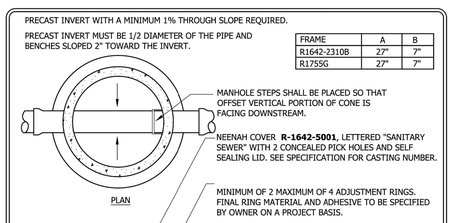
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SKIMMER STRUCTURE WITH CAST IN FIELD CONCRETE BAFFLE WALL

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-18



FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"

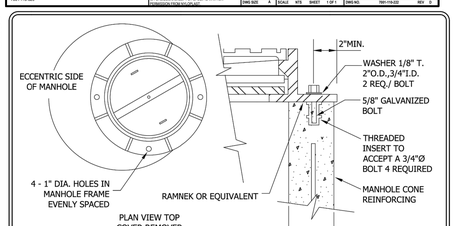
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St. Paul, MN 55113
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SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-1



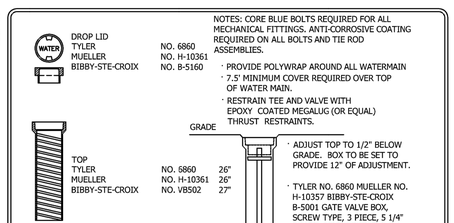
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WATERTIGHT CASTING FOR SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-5



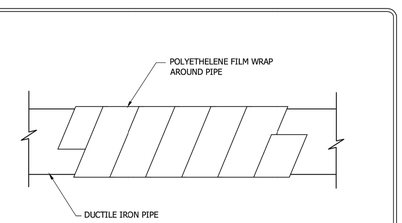
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GATE VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-1



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TYPICAL WATER MAIN INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2008

PLATE NO. WAT-7

DESIGNED BY:	JAP
DRAWN BY:	ABL
CHECKED BY:	GRP

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JEFFREY A. PRASCH, P.E.

DATE: 12.07.21 LIC. NO.: 52706

	REVISIONS
02.21.22	CITY COMMENTS
03.22.22	CITY COMMENTS

DEMARC
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7601 73RD AVENUE N, BROOKLYN PARK, MN 55428
PHONE: 763.560.3093 FAX: 763.560.3522
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PLYMOUTH, MINNESOTA 55441
763.424.3676

CANTISSIMO OF CHASKA
XXX HUNDERTMARK ROAD
CHASKA, MINNESOTA

PRELIMINARY DETAILS

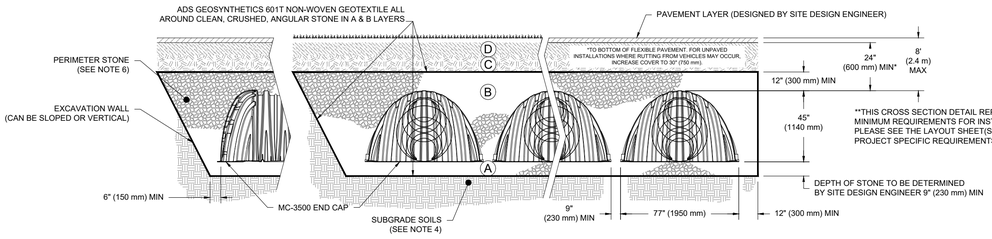
PROJECT: 89556

SHEET NO. C4 OF C11

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

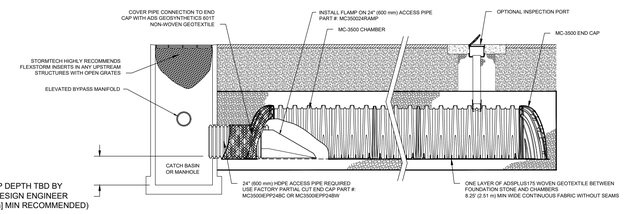
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 MC-3500 CROSS SECTION DETAIL



INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

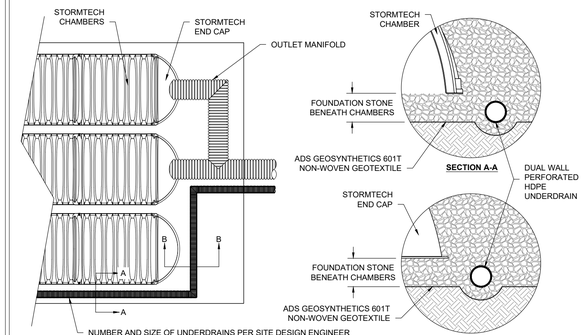
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

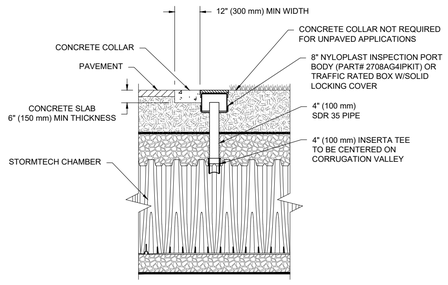
NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

4 MC-3500 ISOLATOR ROW PLUS DETAIL

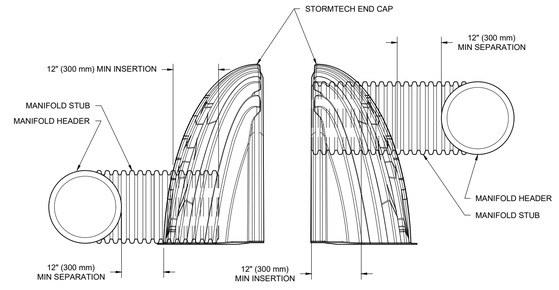


2 UNDERDRAIN DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

3 4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

5 MC-SERIES END CAP INSERTION DETAIL

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.
   STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

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CHECKED BY: GRP	JEFFREY A. PRASCH, P.E. DATE: 12.07.21 LIC. NO.: 52706		

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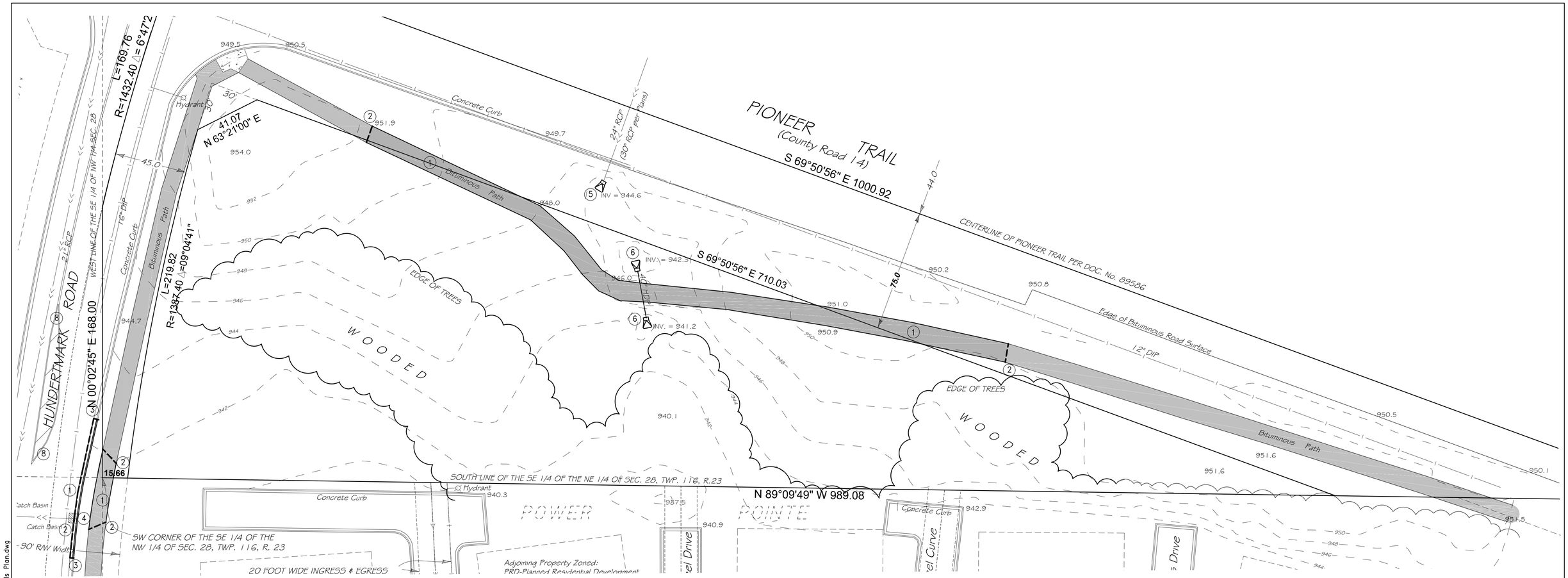
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CHASKA, MINNESOTA

PRELIMINARY DETAILS

PROJECT: 89556

SHEET NO. C5 OF C11

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REFERENCE NOTES:

1. REMOVE BITUMINOUS PATH (FULL DEPTH)
2. SAWCUT BITUMINOUS PAVEMENT (FULL DEPTH)
3. SAWCUT CONCRETE CURB & GUTTER
4. REMOVE CONCRETE CURB AND GUTTER
5. REMOVE FLARED-END SECTION
6. REMOVE CULVERT AND FLARED-END SECTIONS
7. CLEAR AND GRUB TREES PER ARCHITECTURAL SITE PLAN
8. REMOVE YELLOW CROSS HATCHING

LEGEND

- 830 — EXISTING CONTOUR
- EXISTING BUILDING
- EXISTING CURB & GUTTER
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING CONCRETE PAVEMENT
- EXISTING FENCE
- EXISTING SIGN
- EXISTING HYDRANT
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING FES
- EXISTING CATCH BASIN
- REMOVE CURB & GUTTER
- REMOVE BITUMINOUS PAVEMENT
- REMOVE TREE (VERIFY WITH TREE PRESERVATION PLAN)
- SAWCUT PAVEMENT

SCALE IN FEET: 0, 30, 60

DESIGNED BY: JAP
DRAWN BY: ABL
CHECKED BY: GRP

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JEFFREY A. PRASCH, P.E.
DATE: 12.07.21 LIC. NO.: 52706

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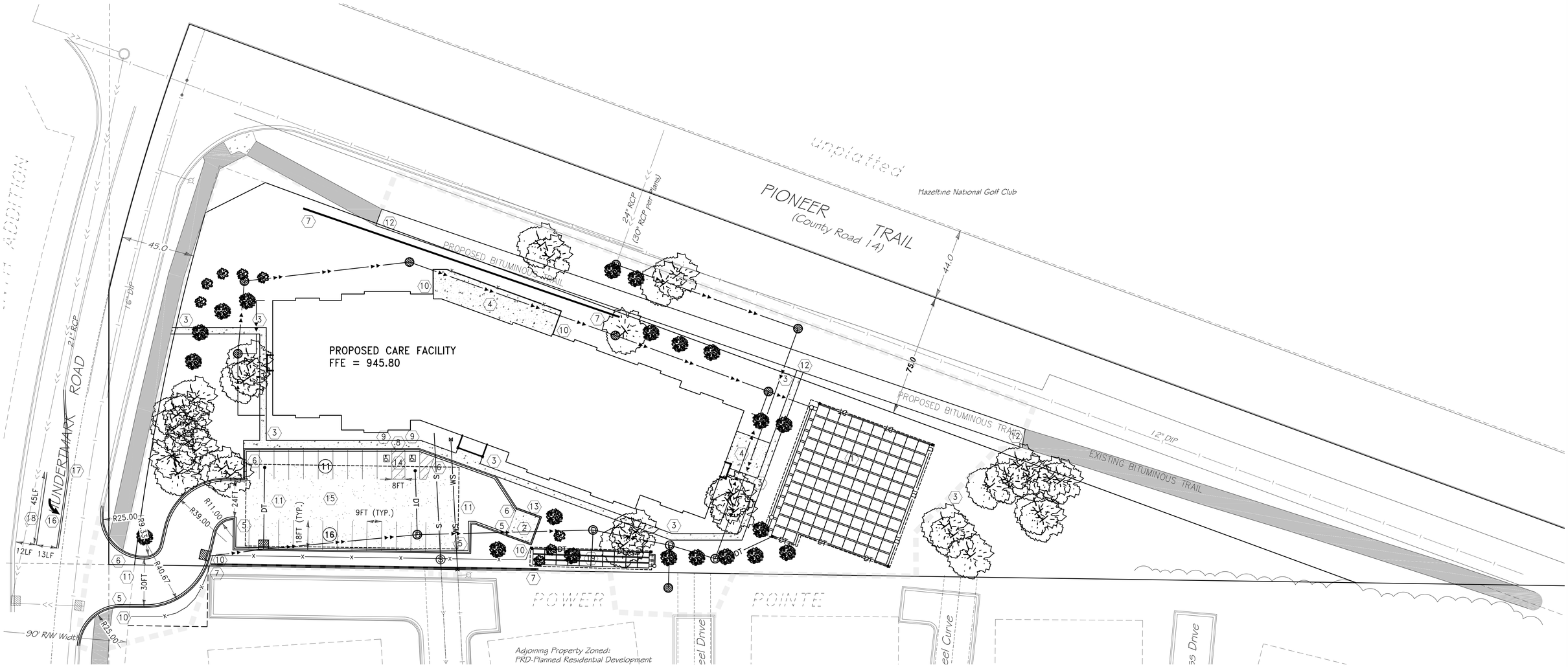
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PRELIMINARY EXISTING CONDITIONS & REMOVALS

PROJECT: 89556
SHEET NO. C6 OF C11

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REFERENCE NOTES:

1. UNDERGROUND STORMTECH MC-3500 SYSTEM PER DETAILS ON C5
2. CONCRETE PAVEMENT PER 5/C2 and 6/C2
3. CONCRETE SIDEWALK PER 4/C2 and 6/C2
4. CONCRETE PATIO PER 4/C2 and 6/C2
5. B612 CURB & GUTTER PER 1/C2
6. B612 TIPOUT CURB & GUTTER PER 1/C2
7. MAXIMUM 4 FT HIGH WALL PER 8/C2 (BLOCK OR APPROVED EQUAL)
8. PED RAMP PER 9/C2 MEETING ADA REQUIREMENTS
9. HANDICAP SIGN AT EACH HANDICAP STALL (2 TOTAL) PER 10/C2
10. FENCE (SEE ARCHITECTURAL PLANS)
11. BITUMINOUS PAVEMENT PER 2/C2
12. BITUMINOUS PATH PER 3/C2
13. TRASH ENCLOSURE (SEE ARCHITECTURAL PLANS FOR DIMENSIONS)
14. 8 FT WIDE PAINTED ACCESS AISLE 45° 4 INCH WHITE CROSS HATCHING WITH NO PARKING SIGN
15. UNDERGROUND FILTRATION PER 1/C4
16. LEFT TURN ARROW
17. 98 LF 4" EPOXY DOUBLE YELLOW LINE
18. 45 LF 4" EPOXY SOLID WHITE LINE
19. UNDERGROUND STORMTECH SC-310 SYSTEM PER DETAILS ON C5

SITE DATA:

LOT AREA = 2.71 ACRES
DISTURBED AREA = 2.28 ACRES
EXISTING IMPERVIOUS AREA = 0.22 ACRES
PROPOSED IMPERVIOUS AREA = 1.13 ACRES
BUILDING COVERAGE = 0.51 ACRES = 19%
PROPOSED PARKING STALLS = 27 (INCLUDES 2 HANDICAP)

LEGEND

- EXISTING BUILDING
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PROPOSED TIPOUT CURB & GUTTER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING CONCRETE
- PROPOSED CONCRETE
- BITUMINOUS PAVEMENT
- PROPOSED FENCE
- EXISTING SIGN
- PROPOSED PARKING STRIPE
- (10) NUMBER OF PARKING STALLS

0 30 60
SCALE IN FEET

DESIGNED BY: JAP
DRAWN BY: ABL
CHECKED BY: GRP

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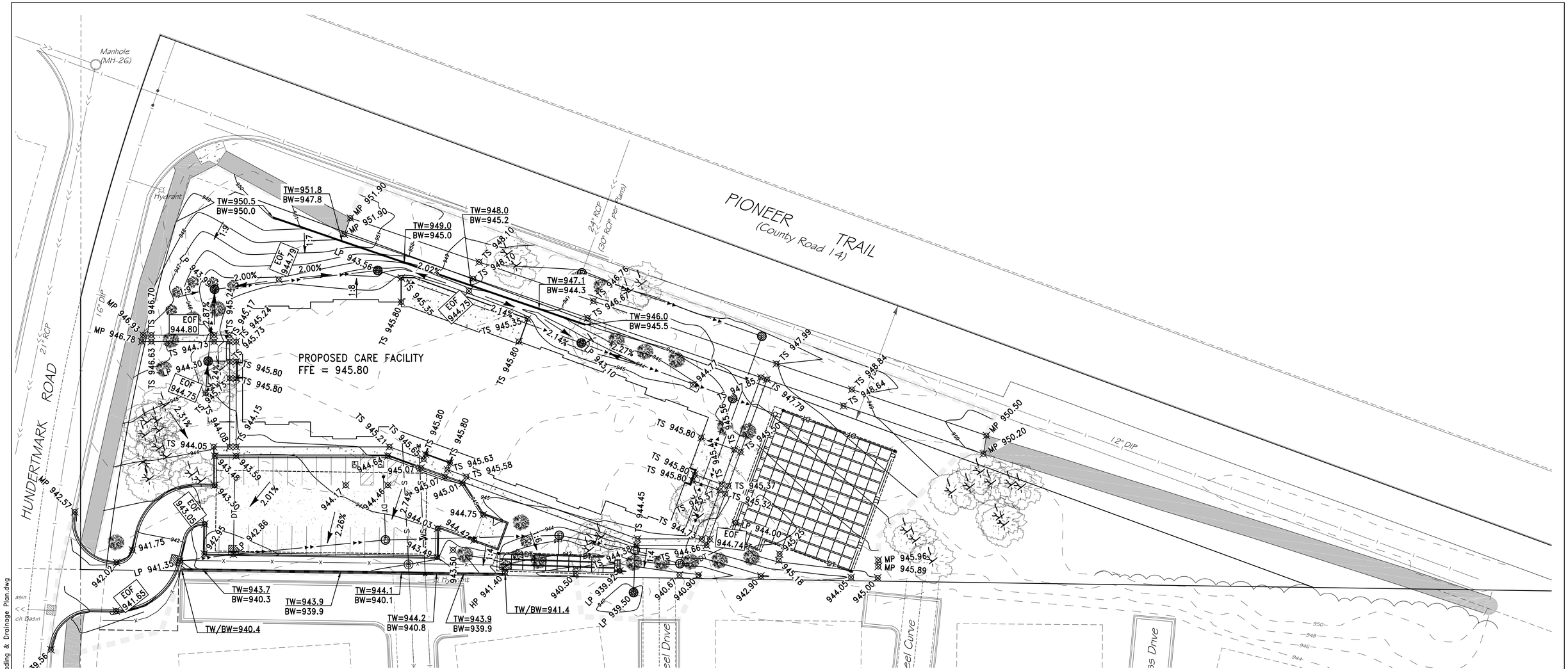
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PRELIMINARY SITE PLAN

PROJECT: 89556
SHEET NO. C7 OF C11

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LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PROPOSED TIPOUT CURB & GUTTER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING WATERMAIN
- EXISTING FENCE
- PROPOSED FENCE
- 3.00% PROPOSED SLOPE
- HP 910.00 PROPOSED HIGH POINT
- MP 910.00 PROPOSED MATCH POINT
- LP 910.00 PROPOSED LOW POINT
- TS 910.00 PROPOSED TOP OF SLAB
- 910.00 PROPOSED GUTTER LINE OR FINISHED GROUND ELEVATION

0 30 60
SCALE IN FEET

DESIGNED BY: JAP
DRAWN BY: ABL
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PRELIMINARY GRADING & DRAINAGE PLAN

PROJECT: 89556
SHEET NO. C8 OF C11

REFERENCE NOTES:
1. CONSTRUCT MANHOLE OVER EXISTING STORM SEWER.
2. SUMP MANHOLE
3. EXISTING UTILITIES APPROXIMATE LOCATION PER PLAN (FIELD VERIFY).
4. F&I ENVIROHOOD OR APPROVED EQUAL ON OUTLET PIPE INSIDE STRUCTURE.
5. CONSTRUCT PRIVATE MONITORING MANHOLE OVER EXISTING SANITARY SEWER STUB.
6. UNDERGROUND STORMTECH SC-310 SYSTEM (30 CHAMBERS) PER DETAILS ON SHEET C5.
7. UNDERGROUND STORMTECH MC-3500 SYSTEM (114 CHAMBERS) PER DETAILS ON SHEET C5.
8. CONNECT TO ROOF DRAIN (VERIFY WITH ARCHITECTURAL PLANS).
9. NYOPLAST CATCH BASIN AND CASTING PER DETAILS ON SHEET C4.
10. CLEANOUT, INV = 937.15

Manhole (MH-26)
EX. HYDRANT
Hydrant
HUNDERTMARK
PIONEER TRAIL (County Road 14)
24" RCP (30" RCP per Plans)
12" DIP
PROPOSED CARE FACILITY
FFE = 945.80
CB 104
48" DIA (R-4342)
RIM = 943.56
12" INV(SE,W) = 941.31
CB 105
48" DIA (R-4342)
RIM = 943.99
12" INV(S,E) = 941.72
CB 106
27" DIA (R-4342)
RIM = 944.30
12" INV(N) = 941.90
8" INV(E,S) = 942.17
① STMH 100
48" DIA (R-4342)
RIM = 948.00
24" INV(NE) = 944.60 (FIELD VERIFY)
24" INV(SE) = 944.60
CB 101
48" DIA (R-4342)
RIM = 947.20
24" INV(NW) = 942.83
24" INV(SW) = 937.54
CB 102
48" DIA (R-4342)
RIM = 943.71
8" INV(SW) = 940.63
15" INV(NW,SE) = 940.13
CB 103
48" DIA (R-4342)
RIM = 943.71
12" INV(NW) = 940.77
15" INV(SE) = 940.57
⑨ CB 113 (STANDARD)
RIM = 947.10
15" INV(NW) = 940.00
15" INV(SW) = 939.95
24" INV(SE) = 938.00
SUMP = 934.00
⑨ CB 112 (STANDARD)
RIM = 944.00
15" INV(NE,SW,SE) = 939.95
SUMP = 935.95
STMH 109
48" DIA (R-1642)
RIM = 943.55
12" INV(W) = 936.53
27" INV(E,S) = 935.66
STMH 115
48" DIA (R-1642)
RIM = 943.40
6" INV(S) = 937.10
12" INV(W,E) = 936.72
② CB 114
48" DIA (R-1642)
RIM = 943.60
12" INV(W) = 938.69
12" INV(E) = 937.15
6" INV(N) = 937.15
WEIR = 940.50
SUMP = 933.15
② ④ CB 108
48" DIA (R-3067)
RIM = 942.86
12" INV(W,E) = 938.69
24" INV(N) = 937.65
12" INV(S) = 939.51
SUMP = 933.65
CB 107
2'X3' (R-3067)
RIM = 941.35
12" INV(E) = 938.83
⑤ SMH 200
48" DIA (R-1642)
RIM = 940.30
8" INV(S) = 928.61 (PER PLAN, FIELD VERIFY)
8" INV(N) = 928.71
⑨ CB 116 (STANDARD)
RIM = 939.92
12" INV(W) = 937.65
8" INV(N) = 937.94
SUMP = 933.65
① CB 111
60" DIA (R-4342)
RIM = 939.50
12" INV(NW) = 936.50
27" INV(NE) = 935.50
27" INV(S) = 935.47 (PER PLAN, FIELD VERIFY)
STMH 110
72" DIA (R-1642)
RIM = 942.20
6" INV(E) = 937.25
24" INV(NE) = 936.04
27" INV(SW) = 935.84
102 LF 12" HDPE @ 0.40%
134 LF 12" HDPE @ 0.40%
118 LF 24" HDPE @ 1.50%
100 LF 15" HDPE @ 0.44%
28 LF 15" HDPE @ 0.46%
45 LF 12" HDPE @ 0.40%
54 LF 8" PVC SCH 40 @ 1.00% MIN. WITH (2) 90° BENDS
59 LF 8" PVC SCH 40 @ 1.00% MIN. WITH 90° BEND
10 LF 8" PVC SCH 40 @ 1.00% MIN.
8" TEE
8" GATE VALVE
CLEANOUT INV = 937.20
CLEANOUT INV = 937.25
106 LF 8" DIP CL 52
CLEANOUT INV = 938.41
50 LF 12" DRAINTILE @ 0.60%
40 LF 8" PERFORATED DRAINTILE @ 0.10%
88 LF 6" PVC SDR 35 @ 2.00%
84 LF 8" DIP CL 52
96 LF 8" PVC SCH 40 @ 1.00% MIN. WITH 90° BEND
29 LF 27" HDPE @ 1.00%
150 LF 24" HDPE @ 1.00%
90° BEND WITH CLEANOUT INV = 937.25
34 LF 12" HDPE @ 0.40%
94 LF 12" HDPE @ 0.40%
107 LF 12" HDPE @ 0.40%
48 LF 12" HDPE @ 0.40%
73 LF 6" PERFORATED DRAINTILE @ 0.0%
6" TEE
22.5° BEND
27 LF 27" RCP @ 1.00%
90° BEND
45° BEND WITH CLEANOUT INV = 937.25
38LF 6" SOLID DRAINTILE @ 0.0%
232 LF 6" PERFORATED DRAINTILE @ 0.0%
Curve
Drive

LEGEND
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED SANITARY SERVICE
- EXISTING HYDRANT
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING SANITARY MANHOLE
- EXISTING FES
- PROPOSED FES

SCALE IN FEET 0 30 60

DESIGNED BY: JAP	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	02.21.22	CITY COMMENTS
DRAWN BY: ABL	JEFFREY A. PRASCH, P.E.	03.22.22	CITY COMMENTS
CHECKED BY: GRP	DATE: 12.07.21 LIC. NO.: 52706		

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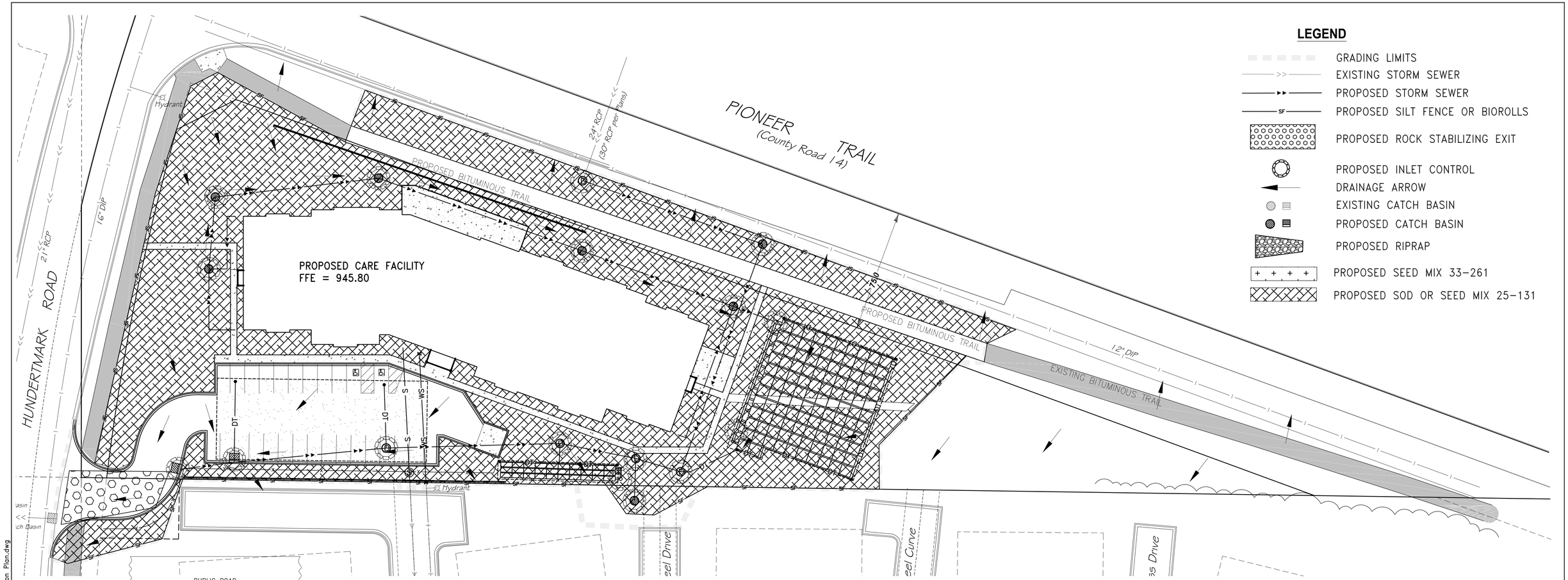
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763.424.3676

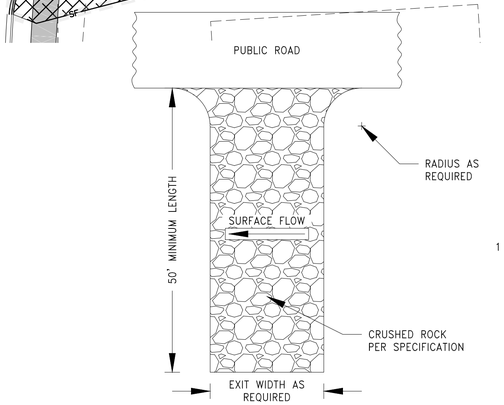
CANTISSIMO OF CHASKA
XXX HUNDERTMARK ROAD
CHASKA, MINNESOTA

PRELIMINARY UTILITY PLAN

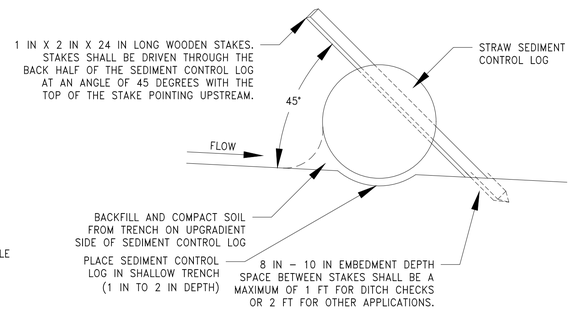
PROJECT: 89556
SHEET NO. C9 OF C11

J:\survey\28-116-23\chaska assisted living\02 Engineering - 89556\01 CAD\05 Sheet Files\06 Utility Plan.dwg

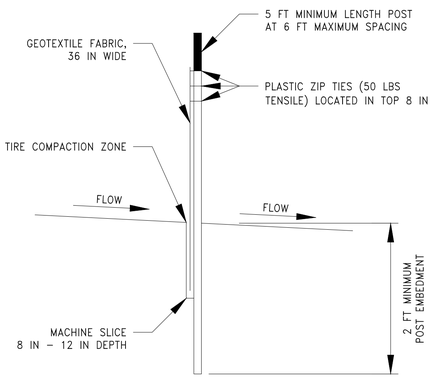




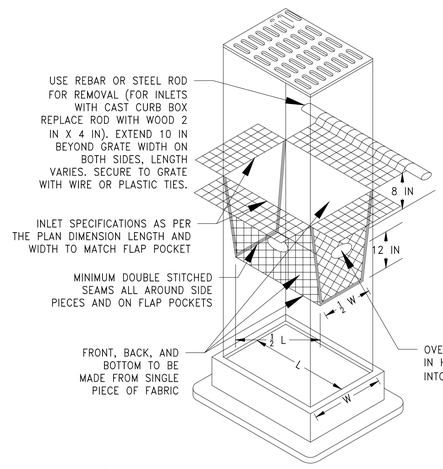
1 C10 ROCK CONSTRUCTION EXIT
NOT TO SCALE



2 C10 BIOROLLS
NOT TO SCALE



3 C10 SILT FENCE (MACHINE SLICED)
NOT TO SCALE



4 C10 INLET PROTECTION
NOT TO SCALE

0 30 60
SCALE IN FEET

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PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN

PROJECT: 89556
SHEET NO. C10 OF C11

\survey\28-116-23\chaska assisted living\02 Engineering - 89556\01 CAD\05 Sheet Files\07 Stormwater Pollution Prevention Plan.dwg

PROJECT INFORMATION:

DISTURBED AREA: 2.28 ACRES
EROSION CONTROL SUPERVISOR CONTACT: TBD
IMPAIRED WATERS WITHIN ONE (1) MILE THAT SITE DRAINS TO: NONE. THE SITE DRAINS TO A WETLAND AND THEN CONVEYED VIA A DITCH TOWARDS THE MINNESOTA RIVER. ALTHOUGH THERE ARE SEVERAL IMPAIRED WATERS WITHIN ONE (1) MILE OF THE SITE, THE STORMWATER RUNOFF DOES NOT DRAIN TO THEM.

AN ASSISTED LIVING AND MEMORY CARE FACILITY IS BEING PROPOSED AT THE CORNER OF PIONEER TRAIL AND HUNDERTMARK ROAD IN CHASKA, MINNESOTA. THE SITE IS ABOUT 2.71 ACRES IN TOTAL. MOST OF THE SITE IS GRASSY WITH SOME WOODED AREA. THERE IS AN EXISTING PAVED PATH THAT RUNS ALONG WEST AND NORTH OF THE SITE. THERE ARE EXISTING RESIDENCES DIRECTLY SOUTH OF THE SITE. CURRENTLY, MOST OF THE EXISTING STORMWATER SURFACE FLOWS TO THE PROPERTY TO THE SOUTH. A PORTION OF THE SITE DRAINS TO THE STREET. A SWALE THROUGH THE MIDDLE OF THE SITE CONVEYS STORMWATER FROM STORM SEWER OUTLET NORTH OF THE SITE AND FLOWS TO A LOW AREA JUST SOUTH OF THE SITE.
THE MAJORITY OF THE SITE WILL CONTINUE TO DRAIN TO THE PROPERTY TO THE SOUTH. THE BIOFILTRATION BASIN WILL RECEIVE THE RUNOFF FROM THE PROPOSED BUILDING AND AREA NORTH OF THE PROPOSED BUILDING. THE UNDERGROUND FILTRATION WILL RECEIVE RUNOFF FROM THE PARKING LOT AND SOME AREA NORTH OF THE PARKING LOT. THE OFFSITE DRAINAGE FROM THE NORTH STORM SEWER OUTLET WILL BYPASS THE SITE THROUGH STORM SEWER AND CONTINUE TO DRAIN TO THE PROPERTY TO THE SOUTH.

KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY

THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS WHO WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, INCLUDING: INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS. THE GENERAL CONTRACTOR SHALL ATTACH CONTACT INFORMATION TO THE SWPPP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

STORMWATER POLLUTION PREVENTION PLAN NOTES:

1. PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ACQUIRE THE NECESSARY MPCA NPDES CONSTRUCTION STORM WATER PERMIT.
2. ALL EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSTALLED PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES. BMP'S SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES FOR THE PROJECT.
4. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.
5. THE CONTRACTOR SHALL KEEP THE SWPPP, INCLUDING ALL AMENDMENTS AND INSPECTION AND MAINTENANCE RECORDS ON SITE DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL DOCUMENT AMENDMENTS TO THE SWPPP AS A RESULT OF INSPECTION(S) WITHIN 7 DAYS.
7. THE CONTRACTOR SHALL FILE A NOTICE OF TERMINATION WITHIN THIRTY (30) DAYS OF ACHIEVING PERMANENT STABILIZATION.
8. THE CONTRACTOR SHALL SCHEDULE THEIR OPERATION TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME.
9. THE INFILTRATION AREAS SHALL BE PROTECTED AND HAVE RIGOROUS EROSION AND SEDIMENT CONTROLS IF GRADED WITHIN 3 FEET OF THE FINAL GRADES. THE CONTROLS SHALL KEEP RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREAS UNTIL FINAL STABILIZATION IS COMPLETE.
10. STABILIZE AREAS THAT ARE WITHIN 200 FEET OF AND DRAIN TO PUBLIC WATER WITHIN 24 HOURS DURING FISH SPAWNING TIMES.
11. WATER SHALL BE USED, IF NECESSARY, FOR DUST CONTROL.
12. ALL EROSION CONTROL SHALL CONFORM TO THE MNDOT EROSION CONTROL HANDBOOK.
13. INLET PROTECTION SHALL BE INSTALLED AT ANY INLET THAT MAY RECEIVE RUNOFF FROM THE DISTURBED AREAS OF THE PROJECT. IF A SPECIFIC SAFETY CONCERN HAS BEEN IDENTIFIED, WRITTEN AUTHORIZATION MUST BE RECEIVED BY THE CITY ENGINEER IN ORDER TO REMOVE THAT PARTICULAR INLET CONTROL.
14. ALL EXPOSED SOILS, INCLUDING STOCKPILES, SHALL BE TEMPORARILY STABILIZED PER MNDOT SPECIFICATION 2575 WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED. STABILIZATION OF ALL EXPOSED AREAS MUST BE INITIATED IMMEDIATELY.
15. STOCKPILES SHALL NOT BE PLACED ON ROADS, DRIVEWAYS, SURFACE WATERS OR SWALES. EFFECTIVE SEDIMENT CONTROL SHALL BE INSTALLED IMMEDIATELY AROUND ALL SOIL STOCKPILES.
16. REMOVE ALL SOILS AND SEDIMENT TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC ROADS OR PRIVATE DRIVEWAYS ON A DAILY BASIS OR AS NEEDED.
17. THE NORMAL WETTED PERIMETER WITHIN 200 LINEAL FEET OF ANY PROJECT DISCHARGE LOCATION SHALL BE STABILIZED WITHIN 24 HOURS OF CONNECTING TO THE DISCHARGE LOCATION.
18. IF DEWATERING IS NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL DEWATERING AND SURFACE DRAINAGE REGULATIONS. THE APPROPRIATE PERMITS SHALL BE ACQUIRED PRIOR TO COMMENCING DEWATERING ACTIVITIES.
19. TURBID AND SEDIMENT-LADEN WATERS SHALL BE DIRECTED TO A TEMPORARY SEDIMENT POND PRIOR TO DISCHARGING. A VISUAL CHECK SHALL BE CONDUCTED PRIOR TO DISCHARGING TREATED WATER FROM THE SEDIMENT POND TO ENSURE NUISANCE CONDITIONS WILL NOT RESULT FROM THE DISCHARGE.
20. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED FROM THE SITE WITHIN THIRTY (30) DAYS AFTER PERMANENT STABILIZATION HAS BEEN ACHIEVED.
21. THE CORRECTIVE ACTION MUST BE COMPLETED BY THE NEXT BUSINESS DAY AFTER DISCOVERY WHEN PERIMETER CONTROL DEVICES BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-HALF (1/2) THE HEIGHT OF THE DEVICE.
22. PERMITEE MUST MINIMIZE SOIL COMPACTION. METHODS OF MINIMIZING SOIL COMPACTION INCLUDE THE USE OF TRACKED EQUIPMENT AND STAYING OFF AREAS TO BE LEFT UNCOMPACTED. AREAS OF COMPACTED SOIL WILL BE REMOVED OR LOOSENED VIA TILLING TO A DEPTH OF NO LESS THAN 18 INCHES.
23. SECTIONS 5.11-5.16, 5.18, & 5.22 OF THE 2018 CONSTRUCTION STORMWATER GENERAL PERMIT DO NOT APPLY.

TRAINING DOCUMENTATION:

SWPPP DESIGNER: JEFF PRASCH (DEMARC LAND SURVEYING & ENGINEERING) - "DESIGN OF CONSTRUCTION SWPPP" TRAINING EXPIRES MAY 31, 2023.

THE CONTRACTOR (OPERATOR) SHALL ADD TO THE SWPPP TRAINING RECORDS FOR THE FOLLOWING PERSONNEL:
- INDIVIDUALS OVERSEEING THE IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP
- INDIVIDUALS PERFORMING INSPECTIONS
- INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS

EXPECTED SEQUENCE OF CONSTRUCTION

1. INSTALL ROCK STABILIZING EXIT(S), PERIMETER CONTROL, INLET CONTROL, AND STABILIZE DOWN GRADIENT BOUNDARIES.
2. COMPLETE SITE GRADING.
3. APPLY EARLY APPLICATION OF BASE COURSE ON PARKING SECTION.
4. INSTALL CURB AND GUTTER, AND PAVING.
5. GRADE BIOFILTRATION BASIN.
6. COMPLETE FINAL GRADING AND PERMANENT STABILIZATION.
7. CONSTRUCT BUILDING.
8. REMOVE EROSION AND SEDIMENT CONTROL BMPs AFTER PERMANENT STABILIZATION IS ACHIEVED.

TEMPORARY SEDIMENT BASINS

1. THE CONTRACTOR SHALL INSTALL SEDIMENT BASIN(S) REQUIRED BY THE NPDES CONSTRUCTION PERMIT IF FIVE (5) OR MORE DISTURBED ACRES DISCHARGE TO A COMMON LOCATION.
2. TEMPORARY SEDIMENT BASIN OUTLETS SHALL BE CONSTRUCTED TO PREVENT SHORT-CIRCUITING AND PREVENT THE DISCHARGE OF FLOATING DEBRIS.
3. BASINS MUST HAVE THE ABILITY TO ALLOW COMPLETE DRAWDOWN, INCLUDE A STABILIZED EMERGENCY OVERFLOW, WITHDRAW WATER FROM THE SURFACE, AND PROVIDE ENERGY DISSIPATION AT THE OUTLET.
4. TEMPORARY SEDIMENT BASINS SHALL BE PROVIDED WITH ENERGY DISSIPATION AT ANY BASIN OUTLET TO PREVENT SOIL EROSION.
5. SEDIMENT BASINS MUST BE SITUATED OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONES, AND MUST BE DESIGNED TO AVOID THE DRAINING WATER FROM WETLANDS.
6. BASINS SHALL BE SIZED ACCORDING TO THE CONSTRUCTION STORMWATER GENERAL PERMIT REQUIREMENTS. CALCULATIONS SHALL BE PROVIDED WITH THE SWPPP.
7. SEDIMENT BASINS SHALL NOT BE PLACED IN FUTURE INFILTRATION AREAS.
8. SEDIMENT BASINS SHALL BE DRAINED AND SEDIMENT REMOVED WHEN IT REACHES ½ THE STORAGE VOLUME WITHIN 72 HOURS.

INSPECTIONS AND MAINTENANCE

1. ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS AND REMOVAL OF BMPS SHALL BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.
2. THE CONTRACTOR SHALL COMPLETE SITE INSPECTIONS, AND BMP MAINTENANCE TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.
3. THE CONTRACTOR SHALL PROVIDE A TRAINED PERSON TO INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. ALL INSPECTIONS MUST BE RECORDED IN WRITING WITHIN 24 HOURS OF CONDUCTING THE INSPECTIONS AND THE RECORDS MUST BE RETAINED WITH THE SWPPP. IF ANY DISCHARGE FROM THE SITE IS OBSERVED THE DISCHARGE MUST BE DESCRIBED AND PHOTOGRAPHED.
4. TEMPORARY AND PERMANENT SEDIMENT BASINS SHALL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES ½ THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.
5. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANOR AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

POLLUTION PREVENTION MANAGEMENT MEASURES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES.
2. ALL POLLUTION PREVENTION MEASURES ARE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS, UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR IS RESPONSIBLE FOR INFORMING ALL VISITORS AND/OR PERSONNEL ON-SITE OF THE POLLUTION PREVENTION MANAGEMENT MEASURES. POLLUTION PREVENTION MANAGEMENT MEASURES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
   A. SOLID WASTE SUCH AS COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, CEMENT PRODUCT WASTE, FLOATING DEBRIS, PAPER, PLASTIC, CONSTRUCTION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY OFF SITE.
   B. HAZARDOUS WASTES SUCH AS OILS, GASOLINE, PAINT, CEMENT BASED PRODUCTS, ETC. SHALL BE PROPERLY STORED WITH SECONDARY CONTAINMENT TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGES. IF STORED ON THE PROJECT SITE, THEY SHALL BE STORED IN RESTRICTED ACCESS AREAS TO PROTECT AGAINST VANDALISM. STORAGE AND DISPOSAL SHALL BE IN COMPLIANCE WITH THE MPCA.
   C. CEMENT BASED PRODUCT WASHOUTS ARE NOT PERMITTED ON SITE.
   D. THE CONTRACTOR SHALL INCLUDE SPILL KITS WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES. SECONDARY CONTAINMENT MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.
   E. THE CONTRACTOR SHALL ENSURE SPILLS ARE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORMWATER CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1.800.422.0798.

FINAL STABILIZATION

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING FINAL STABILIZATION OF THE ENTIRE SITE. FINAL STABILIZATION SHALL BE COMPLETED PER THE LANDSCAPE PLAN:
   A. COMPLETION OF ALL CONSTRUCTION ACTIVITY.
   B. INSTALLATION OF PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOTICE OF TERMINATION. PERMANENT COVER SHALL CONSIST OF 12 INCHES TOPSOIL, AND SOD, UNLESS OTHERWISE SPECIFIED.
   C. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR LANDSCAPED AREAS. SEE LANDSCAPE PLAN FOR PERMANENT VEGETATION SCHEDULE.
   D. CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEMS OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS AND IS OPERATING AS DESIGNED.
   E. REMOVAL OF ALL SEDIMENT FROM CONVEYANCE SYSTEMS.
   F. REMOVAL OF ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs.
   G. FINAL STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH MNDOT 2018 SPECIFICATION 2575.

ESTIMATED EROSION CONTROL QUANTITIES	
SILT FENCE	1600 LF
STABILIZED ROCK EXIT	1 EACH
STORM DRAIN INLET PROTECTION	17 EACH
SOD OR SEED MIX 25-131	1.25 ACRES

DESIGNED BY: JAP
DRAWN BY: ABL
CHECKED BY: GRP

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JEFFREY A. PRASCH, P.E.
DATE: 12.07.21 LIC. NO.: 52706

REVISIONS	
02.21.22	CITY COMMENTS
03.22.22	CITY COMMENTS

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CANTISSIMO OF CHASKA
XXX HUNDERTMARK ROAD
CHASKA, MINNESOTA

PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN NOTES

PROJECT: 89556
SHEET NO. C11 OF C11

I:\survey\28-116-23\chaska assisted living\02 Engineering - 89556\01 CAD\05 Sheet Files\07 Stormwater Pollution Prevention Plan.dwg

Carver County
Public Works
11360 Highway 212, Suite 1
Cologne, MN 55322

*Review comments from the March 2022 preliminary plat submittal are made in blue italic font. Comments updated **April 1, 2022**.*

March 29, 2021

City of Chaska
c/o Elizabeth Hanson, AICP
City Planner
952-448-9200
EHanson@chaskamn.com

Re: Development / Access Review Comments: Cantissimo of Chaska located at PID# 300280330 adjacent to County State Aid Highway (CSAH) 14 (Pioneer Trail)

Thank you for the opportunity to review the subject development in the City of Chaska. Consistent with the County Comprehensive Plan and County Codes, and other official controls of the County, the following are comments and recommended conditions of approval and as potential requirements for any necessary permits to be issued for the project.

1. Regarding access onto the County Highway –
   a. The County's Access Spacing Map in the 2040 Comprehensive Plan (Figure 4.14) identifies this segment of CSAH 14 as Category 5B, which guides full access intersection spacing at 1/4 mile intervals and secondary (limited) intersection spacing at 1/8 mile intervals.
      i. *Information.*
   b. No direct access to CSAH 14 is proposed. Additional County review and approval will be required if this condition changes.
      i. *Information*.
2. Regarding highway right of way –
   a. CSAH 14 at this location is in a transition area from a 2-lane undivided rural roadway facility to the east and becomes a 4-lane divided urban section with curb and gutter approximately 300 ft. from the intersection with Hundertmark Rd. The existing right of way is approximately 85 ft. total with an even distance from centerline on each side for approximately 42.5 ft. from centerline on the south side.
      i. *Information*.
   b. The planned typical section for this section of highway along this property is a 4-lane divided urban facility. The County's 2040 Comprehensive Plan (Figure B.6) defines the needed right of way for this type of highway typical section as 65 ft. from centerline without a trail facility. If the trail facility is included within the County right of way, then an additional 10 ft. is required. The trail facility may be included in a separate City-owned outlot.

CARVER COUNTY

i. *Information.*

c. The plat shall incorporate approximately an additional 22.5 ft. of dedicated right of way from the centerline of CSAH 14 for a total of 65 ft. from centerline, not including the trail facility. If the trail is included in County right of way, then a dedication of 75 ft. from centerline is required. The trail may also be located in a City-owned outlot.

i. *Condition applies. Revision required for right of way dedication from centerline. Confirm trail location within right of way, easement, or City-owned outlot.*

d. A 30 ft. sight triangle right of way dedication from the proposed right of way along CSAH 14 and Hundertmark Rd. is required on the southeast corner of CSAH 14/Hundertmark Rd. intersection.

i. *Condition applies. Revision required.*

3. Regarding access to Hundertmark Rd. and impacts to CSAH 14 intersection -

a. Proposed access should line up across from the existing access to Target on the west side of the road for more predictable operations and to prevent traffic operation issues at the intersection of CSAH 14 and Hundertmark Rd.

i. *Condition applies. Comment resolved.*

b. A left turn lane on Hundertmark Rd. into the proposed development should be added to adequately store the expected number of vehicles that may be waiting to turn to avoid operational issues with traffic backing up to the signal at CSAH 14 and Hundertmark Rd. The developer needs to provide a traffic impact analysis to demonstrate that this left turn lane can adequately store the expected number of waiting vehicles without impeding southbound Hundertmark Rd. traffic.

i. *Condition applies. Comment resolved. To the extent possible, avoid impacts or changes to the turn lanes serving the CSAH 14/Hundertmark Rd. intersection and work with County Public Works regarding review and approval of any impacts or changes.*

4. The County will need to review and approve the final grading plans for properties adjacent to CSAH 14. A grading permit will be required for grading work within the highway right of way. The grading and trail reconstruction along CSAH 14 will need to be compatible with the future CSAH 14 4-lane divided urban design.

i. *Condition applies. Drainage calculations for storm sewer within and impacting the County right of way will be required for review as part of permit approval.*

5. The technical details of the final plat, its boundaries and form(s) will need to be reviewed and approved by the County Surveyor.

i. *Condition applies for final approval.*

6. Prior to any work affecting or on County highways or in County right of way, the applicant shall coordinate plans with the County Engineer and obtain a Utility or Excavating/Filling/Grading Permit(s) from Carver County Public Works: (www.co.carver.mn.us/departments/public-works/quick-links/permits). Final details of locations, grades, and profiles affecting County roads as well as any utility connections will need to be reviewed and approved prior to any permits.

i. *Condition applies. Additional review and coordination needed for permit approval.*

7. Any damages, modifications, or changes incurred on County highways from current or approved conditions will need to remedied or updated at development expense, including costs incurred by the County.

i. Information.

These are the County's comments at this time. If you have any questions or need further assistance, please contact staff noted below:

Joan Guthmiller Administrative Technician Carver County Public Works 952.466.5201 jguthmiller@co.carver.mn.us	Angie Stenson AICP Sr. Transportation Planner Carver County Public Works 952.466.5273 astenson@co.carver.mn.us	Dan McCormick, P.E. PTOE Traffic Services Supervisor Carver County Public Works 952.466.5208 dmccormick@co.carver.mn.us

TCO Design

P.O. Box 41790, Plymouth, MN 55441
952-994-8276
todd@tcodesign.net

December 14, 2021

Assisted Living and Memory Care Facility
Corner of Pioneer Trail and Hundertmark Road (PID# 300280330)
Chaska, MN 55441

CANTISSIMO of CHASKA
CHASKA PIONEER SL, LLC
Anasazi Holdings, LLC - Paul Ablack, CEO
603 Lake Street East, Suite 203
Wayzata, MN 55391

Project Narrative:

Background

The proposed site is currently owned by Chaska Pioneer SL, LLC. Chaska Pioneer SL, LLC (Applicant) is proposing to construct a one story 32-unit (38 resident) care suite building on this site. This is a quiet, family-oriented facility that will fit nicely at this location. The site is on the corner of Pioneer Trail and Hundertmark Road. This central location close to a freeway and with great services within a mile makes this site a great location for an assisted living and memory care facility.

The maximum number of employees when the facility is full will be 12. This is the number of employee required by the State for this type of facility and care. This is also the number that a management company needs to provide the patients with meals, personal hygiene, housekeeping and any other resident needs. Building and exterior maintenance will be outsourced and maintained to the highest standards. There is plenty of on-site snow storage space. We are providing 24 off-street parking spaces that includes 1 ADA spaces. All deliveries will be at or near the main entrance of the building.

One Story vs. Two Story

There has been a discussion on whether the building should be one story or two story. The conclusion was one-story for several reasons.

1. It is considered desirable for the residents to live in a one-story building. We feel that residents will be more comfortable in a one-story where all the living is on one level rather than dealing with stairs and an elevator to get around their living environment.
2. A one-story building would be less obtrusive to the neighborhood to the South as well as to the intersection of Pioneer Trail and Hundertmark Road.
3. Instead of 32 units, we would need 44-48 units. This increase would be necessary because a two-story building will be more expensive to build and operate. This is a result of a code requirement that a two-story building be constructed of steel and concrete rather than wood, two sets of stairwells would be required to meet code, an elevator would be required to meet code and additional staff would be needed to cover two different floor levels.
4. The increase in units would require an increase in parking and traffic. The increase of 24 parking spaces to 32 means an increase in parking lot cover of approximately 2200 square feet. This increase in parking and traffic would be less desirable with the curved access point at the Southwest tip of the property.
5. While the bigger footprint will impact more trees, the actual loss of trees is less than the previous concept recommended for approval because of the bigger excavation area due to the proposed sub-garage of the previous project. Our concept is of slab on grade construction with minimal excavation. Please refer to Exhibit A on sheet A1.2.
6. The one-story with less units falls more in line with the Chaska Mission Statement: to be the 'Best Small Town in Minnesota'.

Compliance with Chaska Mission Statement

Chaska Mission Statement: to be the 'Best Small Town in Minnesota'.

Not a 'throw-away' statement. With the primary mission of the City of Chaska being to enhance and maintain the high quality of life of its 'shareholders', the citizens of Chaska, this project truly integrates that mission.

This project provides a balanced residential component that any community needs for true full life-cycle housing. Assisted living facilities bring back a spirit of community and sociability with numerous common areas centrally located. The participatory nature of assisted living enhances the lives of its residents and contributes to healthier living. While residents can enjoy the privacy of their individual space, there are also many opportunities for social involvement.

Cantissimo of Chaska promises to be a great asset to the Best Small Town in Minnesota.

Chaska Core Strategy Reinforcement

Chaska's Mission Statement is further enhanced by 5 Core Strategies. Below are several ways we believe this project meets those strategies:

CHASKA'S HIGH QUALITY OF LIFE IS ENHANCED – This project provides a low impact development on the 2.7-acre site by maintaining most of the site in its natural state providing open spaces and environmental preservation. This will allow the residents to enjoy these open spaces as well as the public with the adjusted walking trail along Pioneer Trail.

WELL PLANNED AND ORDERLY COMMUNITY DEVELOPMENT IS A PRIORITY – This new development will have a positive impact to the community in providing much needed senior housing options. The project sits adjacent to an existing townhome development and therefore consistent with the land use contemplated for the area. The infrastructure is already in place, thus allowing a cost-effective development for the City and its shareholders.

A SENSE OF COMMUNITY AND SMALL TOWN TALUES ARE MAINTAINED – This project will certainly provide an emphasis on family, neighborhood, and integration. It integrates along with townhome development to the South, as well as single family development to the West. The Chaska High School is near to the East and supports many public activities as well as a local meeting space for local church services. This will allow active participation in civic, religious, and other volunteer activities given its proximity to these amenities.

COMMITMENT TO EXCELLENCE – We believe that Cantissimo of Chaska will bolster this commitment. Our Development team has an excellent track record in providing a high-quality development and shares the same desire and vision of excellence that the city of Chaska possesses.

Programming and Project Opportunity Development

The building fits well with the existing townhomes located in Pioneer Pointe, the closest neighbor. The use of cedar shake 'look' siding, horizontal siding, and stone are similar. We also are using a combination of gable and hip style roofs. Even though they are two story, our one story has similar mass since we have a bigger footprint.

The exterior patios are located close to the existing walking trail and relate to a sidewalk. Residents who are able will be connected to walking trails with this sidewalk.

The building is placed closest to Hundertmark Road to minimize the amount of driveway and parking lot needed to properly access the building.

The main entry, East entry, and West entry are visible from Hundertmark, Pioneer Trail, or the walking trail. There is transparence from all the resident's units. The only blocking of views is from the private patio accessed from the building common area.

The access to the site will be off Hundertmark Road. The traffic generated by this concept is considerably less than the previous concept recommended for approval. A new traffic study will be provided. We are working with Pioneer Pointe to obtain an easement to be more in line with the current Target East entrance.

Commercial Drafting and Home Design
Dedication to excellence

The current site has a natural grade and drainage to the Southeast. The concept will not alter this other than add an infiltration pond and perhaps pervious pavement to keep stormwater run-off on our property. We will not increase stormwater to the South. A qualified civil Engineer will determine this through the application process.

A sign monument will be added near the driveway entrance from Hundertmark Road. The sign will identify the building and will meet Chaska city code.

Ownership Guiding Principles

Provide a quality and a compassionate living environment for individuals in need of assistance for day-to-day life.

Develop and maintain a facility and site to high standards that is an asset to the community and neighborhood.

Establish a business that fits the motto and standards of the city of Chaska.

Provide jobs and opportunities that will bring quality residents and services to the city of Chaska.

Encourage community involvement between the residents of Cantissimo of Chaska and the neighborhood.

Ownership Background

This dream of quality care for senior began in 2013 when one of the Owner's grandfather was diagnosed with Alzheimer's. Looking for a 'home' for his grandfather became the groundwork for stepping into their Fridley facility. Partnering with Jennifer Thorson, the executive Director of Fridley, they added an Anoka facility. They are currently looking to expand to Columbia Heights, Chaska, and Wayzata. The goal is to maintain the high standards of quality living for their residents and the cities in which they operate. Their goal is to expand at a speed that does not dimmish the quality of care and service.

The 'Senior Advisory.com' has awarded their Fridley facility the best of 2018 and 2019 awards. It is anticipated they will also receive their 2020 award. They have received 4.5 out of 5 state rating for residents and tours through Facebook, caring.com, senioradvisor.com. The Fridley 'home feel' facility has been operating for 3 years and has been so successful they are currently adding 18 more rooms to the existing 28 room facility. The addition is expected to be complete by the end of this summer.

This Ownership has shown success by providing a 'home feel' facility for the residents, family, and community they reside in. They will be bringing this same quality and best small town facility to Chaska.

Request for a 100' setback from Pioneer Trail

The 2.7-acre lot has a very unusual flat triangle shape. With the standard 125' setback from Pioneer Trail there would only be about 32,000 square feet of usable area for building and parking. This would not be enough area to fit the size of building needed to support a development for senior housing. The additional 6,000 square feet of usable area gives the elbow space needed to properly fit a development on the site with appropriate tree placement and outdoor area and sidewalks.

The building is angled to the West so that the West end of the building meets the 125' setback. This will maintain sight lines from Hundertmark Road and Pioneer Trail at the intersection.

Tree Preservation and Building Shape/Location

Several building shapes and locations have been considered for our use and this site. The location of the parking lot is ideal in preserving trees, placing the driveway as far South as possible on our site and efficiency of hardcover. We explored a straight building shape and a double angle shaped building. Both shapes were less efficient than the one angle shape proposed to the site and resulted in further compromise of the significant trees. The slab on grade construction allows minimal impact on existing trees. The shape, location and construction allow us to preserve 28 of the 35 trees indicated by Staff as significant. We will work with arborist through our process to ensure we reach the maximum possible preservation. The previously concept recommended for approval would only be able to preserve 25 of the 35 as shown in Exhibit A on sheet A1.2.

Traffic Consideration

We have provided two traffic studies showing minimal impact on Hundertmark Road traffic. These indicated that the new entrance with a short-left turn lane for South bound traffic into our proposed project will not impact the intersection of Hundertmark Road and Pioneer Trail. We have talked to the townhome association about an easement to be as close as possible to Target's East entrance. We have placed our driveway as far South as possible within the proposed easement.

Enclosed Patio Area

A generous enclosed patio area is provided for the residents of the building. Because a significant number of residents cannot be outside on their own, the enclosed patio will provide a nice exterior setting that is safe and secure. Being enclosed, it will be available to these residents more frequently than a patio that is not enclosed and safe. An open patio area is provided on the East side of the building for those residents who do not require as much overwatch.

Community Benefit

This facility will bring with it a good economic benefit from construction to operation. During construction the project will bring lots of workers who will patron local businesses for lunches, services and retail. Once in operation, the employees, professional visitors and guest visitors will also patron the local businesses for the entirety of its operation. The facility will provide approximately 40-50 good new jobs just on employees and dozens of increased business opportunities for medical professional visitors and visiting maintenance personnel.

There are several other advantages to a residential care facility for this community. It is important to the owner and operators that this facility is well maintained and run. All aspects of site and building maintenance will be kept to high standards. The families and groups associated with Comprehensive Care have high standards for this type of facility and for their residents. They are caring family members, medical professionals and business professionals. These types of facilities are quiet and low key. There will be no large and loud parties or gatherings. It will have 24 hour a day security.

Zoning and Land Use

Zoning

The current zoning for the site is PRD, Planned Residential Development. The proposed use for the building is assisted living/memory care. According to City Code permitted uses, Section 4, Sub-Section 4.2.3.1 Dwelling Units: Dwelling units in detached, semi-detached, attached, or multi-storied structures, or combinations thereof, and supporting public, recreational, and commercial uses to serve area residents. Assisted living and similar facilities are considered dwelling units.

Building

The proposed building will consist of one floor of assisted living and memory care units. The total floor area is approximately 23,000 square feet. There will be two wings with a central gathering space that includes a seating area, dining area, kitchenette, and salon. There will be a total of 32 care units/38 residents. Each unit will contain an entry, closet and ¾ bath with an ADA shower. There will be a central kitchen to provide nutrition for the residents.

The residents will get assisted living care and memory care. Specific services provided will be determined by the management company. Memory care patients are not allowed to wander outside of the facility without being accompanied by a care team member. The facility will operate under the Minnesota state Comprehensive Care License requirements.

The proposed building will use exterior materials consistent with current residential construction. It will utilize a nice balance of manufactured stone and 'LP SmartSide'. The siding will be varied by using a combination of textures and colors. Other architectural features such as decorative vents, columns and brackets will be used to add visual interest. The roof will be finished with 'shake look' architectural asphalt shingles.

One hundred percent (100%) of the proposed exterior materials are Class I materials as described in the city of Chaska's zoning ordinance, Section 9.11.4.1 Permitted Materials – Multi Family Residential.

Site

The overall site is approximately 2.71 acres. Setbacks for the property and proposed building are listed in the table below. The building location requires front yard setback variance from the City required front yard setback. The Developer is requesting a 100' setback from Pioneer Trail. The size and shape of this site creates a hardship not created by the Developer. This is caused by a small triangular shaped site that has two front streets.

	Building Setback		**Pavement Setback**	
	Required	Proposed	Required	Proposed
Front / Pioneer Trail ROW	125 Feet	100 Feet	20 Feet	22 Feet
Front Yard Hundertmark Road	100 Feet	100 Feet	10 Feet	100 Feet
Rear Yard South	20 Feet	28 Feet	10 Feet	10 Feet

Access and Parking

A new driveway will enter the site from Hundertmark Road as far South from Pioneer Trail as the property and new easement will allow. There will be a new 26-foot-wide curb cut to allow access for personal vehicles, delivery vans, and emergency vehicles. A 6-0 high fence will be installed to provide screening between the parking lot and the Pioneer Pointe townhomes to the South.

Parking has been provided to serve the proposed building with 24 parking stalls which exceeds City requirements. Based on City code, 1 parking space is required for every 2 dwelling units. A building with 32 dwelling units would be required to provide 16 parking spaces. One accessible stall is provided in accordance with 2020 MN Accessibility Code. The standard parking stalls are 9'x18' and the drive aisle is 26 feet in width.

Landscaping and Tree Preservation

A Landscape Plan and a Lighting Plan is provided to show new trees, new shrub screening and exterior lighting. There will be a 6-0 tall fence screening from the outdoor patio from Pioneer Trail and between the parking lot and townhomes to the South. The types (species) of new trees and minimum sizes are provided on the Landscaping Plan and the Lighting Plan. Tree preservation goal will be addressed.

Grading, Drainage, Utilities and Stormwater Treatment

Proposed preliminary site grades, drive aisles, parking areas, utilities and stormwater treatment is provided by our civil Engineer for the Preliminary Plat Review application process. A preliminary shallow infiltration pond is shown on the current site plan. This will be like a drainage ditch you would see on the side of Pioneer Trail and the existing walking trail. Our civil engineer has addressed this with a stormwater management plan.

Impact to Public Safety:

Lift Assistance

The proposed facility will incorporate the use of 'Hoyer' or equal lifts to assist residences who fall. An assessment will be made on site and have proper care staff on site 24/7 to assist with any fall or emergency, to assess the incident and be advised by the registered nurse as to when or if to call 911 for further assistance. The staff will only call 911 if a bone fracture is discovered or a head injury is sustained. Any other assistance will be performed by staff within the facility.

Commercial Drafting and Home Design
Dedication to excellence

CPR (Cardiopulmonary Resuscitation)

The staff of this facility will not perform CPR on residents suffering from a heart attack or lack of breathing. 911 will be called in these instances, due to the fragile state the residents are in there appears to be a larger liability on the community if staff were to perform CPR vs waiting for 911 IF the resident is not DNR. Attempted CPR can cause harm to its residents, including broken ribs, sternum fractures, and dislodged pacemaker electrodes. Additionally, attempted CPR on the elderly also has very low success rates.

D-N-R (Do Not Resuscitate Order)

All residents upon admission are required to bring forth a health care directive, POLST, and DNR/DNI. Most of the time our residents are admitted with a DNR/DNI in place, which is compatible to our no-CPR policy on site.

Lanewood Estates, LLC Development Schedule
December 2021 – Preliminary Plat Review Application to the City of Chaska
Winter 2022 – Building Permit Application
Spring 2022 – Begin Construction

Commercial Drafting and Home Design
Dedication to Excellence

TCO Design

P.O. Box 41790, Plymouth, MN 55441
952-994-8276
todd@tcodesign.net

February 28, 2022

Assisted Living and Memory Care Facility
Corner of Pioneer Trail and Hundertmark Road (PID# 300280330)
Chaska, MN 55441

CANTISSIMO of CHASKA
CHASKA PIONEER SL, LLC
Anasazi Holdings, LLC - Paul Ablack, CEO
603 Lake Street East, Suite 206
Wayzata, MN 55391

Project Narrative Addendum (100' vs. 125' and Easement Status):

100' Setback vs. 125' Setback

The 2.7-acre lot has a very unusual flat triangle shape. With the standard 125' setback from Pioneer Trail there would only be about 32,000 square feet of usable area for building and parking. This would not be enough area to fit the size of building needed to support a development for senior housing. The additional 6,000 square feet of usable area gives the elbow space needed to properly fit a development on the site with appropriate tree placement and outdoor area and sidewalks.

To maintain the 125' setback, the building and parking lot would have to be pressed more towards the South, West, and East. This would be needed to maximize the available space within the current setbacks. This would result in a loss of 8 trees, but a gain 1 tree for a net loss of 7 more trees. Five of those are considered significant by city staff. A '100' vs. 125' Setback Exhibit' Site Plan has been provided. It shows the eight trees that would have to get pressed out as the building would have to move into those areas to achieve the needed building footprint.

Access Easement Status

An access easement exhibit was provided to the Pioneer Pointe HOA (HomeOwner's Association) on 11-4-21. Mary Myss shared the exhibit with the HOA. Mary responded with an e-mail on 11-18-21 indicating that the exhibit would be approved with a vote of 48-1. She provided a list of the Homeowners that participated. The e-mail and list have been provided.

We will ask Pioneer Pointe for a formal approval after we receive Preliminary Plat approval from the city of Chaska.

Landscape Planting Beds

The intent of final landscaping is to have a continuous planting bed around the building perimeter. The Landscape Plan only represents code minimums for trees and screening. A picture has been provided of this Developer's previous project in Fridley that shows their intent.

TCO Design

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952-994-8276
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March 21, 2022

Assisted Living and Memory Care Facility
Corner of Pioneer Trail and Hundertmark Road (PID# 300280330)
Chaska, MN 55441

CANTISSIMO of CHASKA
CHASKA PIONEER SL, LLC
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Preliminary Plat Project Narrative Addendum 2:

Place Building to South and Parking to the North (Item #1):

An exhibit showing a concept of the building being placed to the South side of the property and the parking lot being placed to the North side of the property has been added. It is on plan set sheet A1.8. Because the need to line up the driveway with Target, the driveway must start where we originally planned and run along the West side of the building. This causes an additional removal of 9 significant trees. Also, the needed reshaping of the building will cause the removal of 3 additional significant trees and 3 other trees. The total loss of trees with this move would be 9 significant trees and 3 others for a total of 12 more trees being removed.

Mechanical Locations and Screening (Item #3):

The Site Plan and plan set sheet A1.1 shows the only exterior mechanical equipment being the air conditioning units. They are located on the North side of the building within the enclosed patio and additionally screened behind a 6-0 fence. The only other equipment will be in the interior of the building within a mechanical room shown on the floor plan.

Request to show two fire hydrants on the site plan (Item #5):

We had communication with Elizabeth Hanson. We are waiting for the Fire department to indicate the preferred location. We will add to our documents as soon as we have those locations.

Fence Specification Request (Item #7):

The stormwater pond has been changed to an underground basin. This mean there is no longer a need for a guard rail, so no specifications are needed or supplied at this time.



BUILDING FLOOR PLAN

A2.1 SCALE 1" = 10.0'

0 1 2 3 4 6 8 10 14 18 26

JIM MACKEY ARCHITECT

JIM MACKEY ARCHITECT
1723 LaFond Avenue
St. Paul, MN 55104

Jim Mackey
Office 651-644-0869

registration # 23018

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Plan Date
PP APPL. 12-1-21

CANTIGNIMO OF CHASKA

PID# 300280330 (PIONEER TRAIL AND HUNDERTMARK ROAD), CHASKA

TCO DESIGN
drafting and home design

P.O. Box 41730
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dedication to excellence

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Design #
tco202104
FLOOR PLAN
A2.1



1 A3.1 **SOUTH ELEVATION (WEST WING) (FRONT OF BUILDING)**

SCALE 1/8" = 1'-0"

0 1 2 3 4 6 8 10 14 18 26



3 A3.1 **EAST ELEVATION (RIGHT SIDE OF BUILDING)**

SCALE 1/8" = 1'-0"

0 1 2 3 4 6 8 10 14 18 26

EXTERIOR MATERIALS:

ROOFING - 'GAF TIMBERLINE' NATURAL SHADOW OR EQUAL

SOFFIT MATERIAL - 'SMARTSIDE 190 SERIES' OR EQUAL

SIDING MATERIAL AT GABLES - 'LP SMARTSIDE' 0.375"X11.69"X47.94" CEDAR TEXTURE SHAKES OR EQUAL

SIDING MATERIAL ABOVE STONE - 'LP SMARTSIDE' 38 SERIES CEDAR TEXTURE LAP (6TRAND) (0.315"X1.84") OR EQUAL

EXTERIOR TRIM - 'LP SMARTSIDE' 540 SERIES REVERSIBLE TRIM (0.910") OR EQUAL

MANUFACTURED STONE - 'URESTONE' STACKED STONE OR EQUAL



2 A3.1 **SOUTH ELEVATION (EAST WING) (FRONT OF BUILDING)**

SCALE 1/8" = 1'-0"

0 1 2 3 4 6 8 10 14 18 26

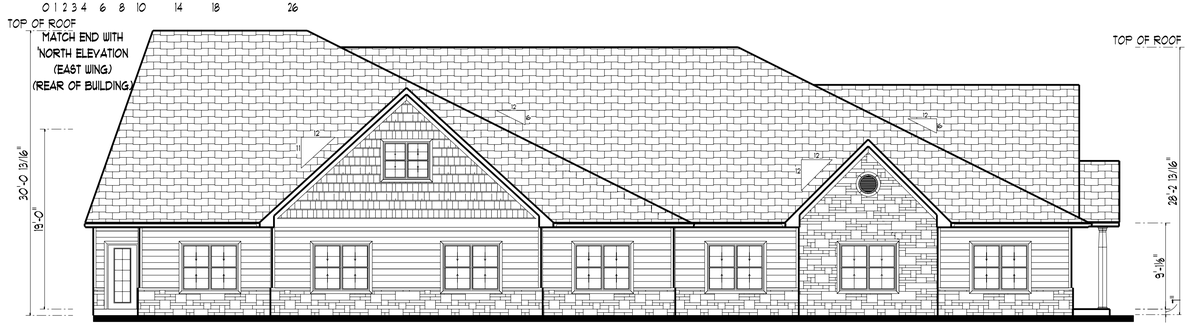
NOTE: 100% OF EXTERIOR MATERIALS QUALIFY AS CLASS I PER ZONING ORDINANCE SECTION 9.11.4.1
PERMITTED MATERIALS - MULTI FAMILY RESIDENTIAL:
II) NATURAL STONE
III) GLASS
IV) LP SMARTSIDE LAP SIDING



4 A3.1 **WEST ELEVATION (LEFT SIDE OF BUILDING)**

SCALE 1/8" = 1'-0"

0 1 2 3 4 6 8 10 14 18 26



5 A3.1 **NORTH ELEVATION (WEST WING) (REAR OF BUILDING)**

SCALE 1/8" = 1'-0"

0 1 2 3 4 6 8 10 14 18 26



EXTERIOR MATERIALS:

ROOFING - 'GAF TIMBERLINE' NATURAL SHADOW OR EQUAL

SOFFIT MATERIAL - 'SMARTSIDE 190 SERIES' OR EQUAL

SIDING MATERIAL AT GABLES - 'LP SMARTSIDE' 0.375"X11.69"X47.94" CEDAR TEXTURE SHAKES OR EQUAL

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MANUFACTURED STONE - 'URESTONE' STACKED STONE OR EQUAL

6 A3.1 **NORTH ELEVATION (EAST WING) (REAR OF BUILDING)**

SCALE 1/8" = 1'-0"

0 1 2 3 4 6 8 10 14 18 26

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TCO DESIGN
drafting and home design

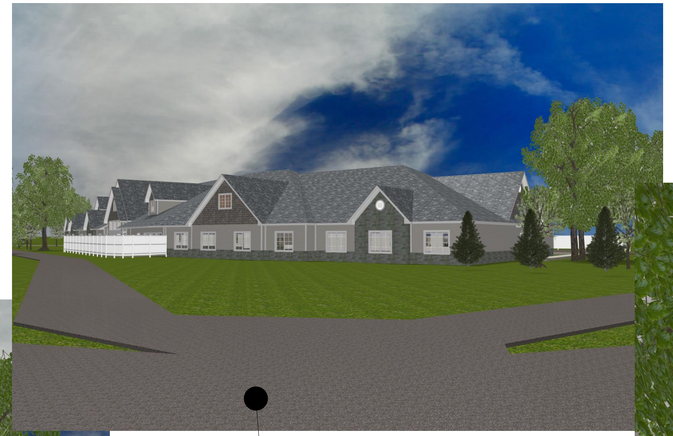
P.O. Box 47760
Plymouth, MN 55447

dedication to excellence

Prepared by
Todd Ofathun
Office 763-424-3676
Cell 952-854-8716

todd@tcodesign.net

Design #
tco202104
EXTERIOR ELEVATIONS
A3.1



NORTH SIDE AS VIEWED FROM THE CORNER OF PIONEER TRAIL AND HUNDERTMARK ROAD



WEST ENTRY AS VIEWED FROM HUNDERTMARK ROAD



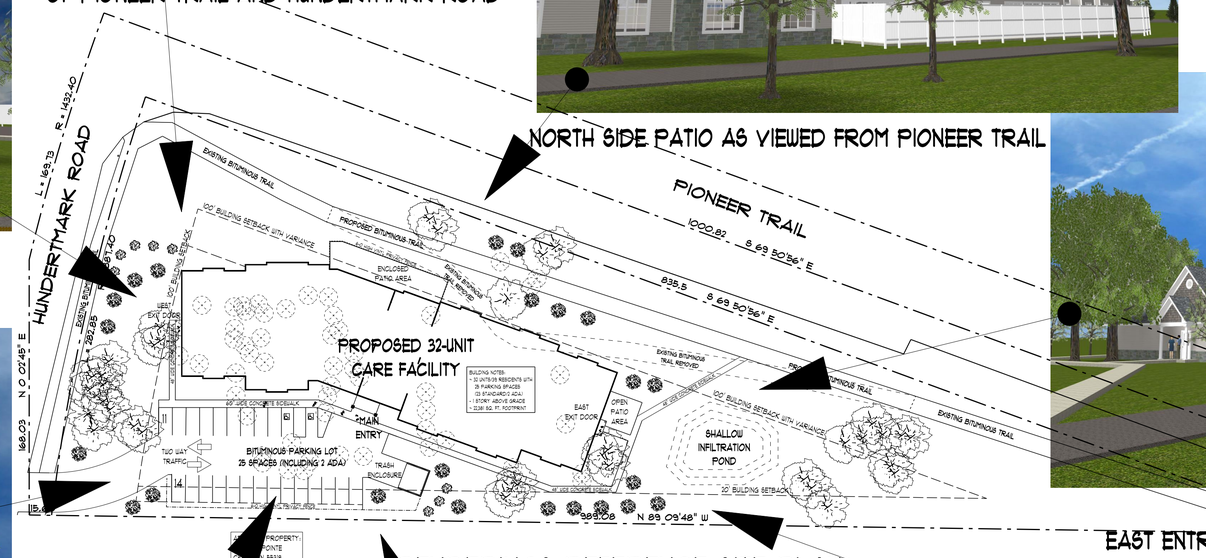
NORTH SIDE PATIO AS VIEWED FROM PIONEER TRAIL



EAST ENTRY AS VIEWED FROM PIONEER TRAIL



MAIN ENTRANCE VIEW FROM HUNDERTMARK ROAD



RENDERINGS REFERENCE SITE PLAN

1 A3.2

SCALE 1" = 50.0'



MAIN ENTRY AS VIEWED FROM PIONEER POINTE



VIEW OF THE SOUTHEAST CORNER

JIM MACKEY ARCHITECT

JIM MACKEY ARCHITECT
1723 LaFond Avenue
St. Paul, MN 55104

Jim Mackey
Office 651-644-0869

registration # 23018

Drafting by:
Todd Ofthun

Office 763-424-3676
Cell 952-934-8716

todd@tcodesign.net

Plan Date
PP APPL. 12-1-21

CANTISSIMO OF CHASKA

PID# 300280330 (PIONEER TRAIL AND HUNDERTMARK ROAD), CHASKA

TCO DESIGN
drafting and home design

P.O. Box 41730
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Design #
tco202104

A3.2

CANTISSIMO OF CHASKA

Assisted Living and Memory Care Facility

Corner of Pioneer Trail and Hundertmark Road







CANTISSIMO OF CHASKA

Assisted Living and Memory Care Facility

Corner of Pioneer Trail and Hundertmark Road

COLORS APPLIED SAMPLE

Sample is a Cantissimo Project in Wayzata

Colors as indicated on Sample Board

ROLLEX SYSTEM 3

Soffit and Fascia System

Color: White

CANTISSIMO OF CHASKA

Assisted Living and Memory Care Facility

Corner of Pioneer Trail and Hundertmark Road

LP SMARTSIDE

Trim and Siding

Color: Quarry Gray

GAF TIMBERLINE Roofing

Natural Shadow Lifetime Shingles

Color: Pewter Gray



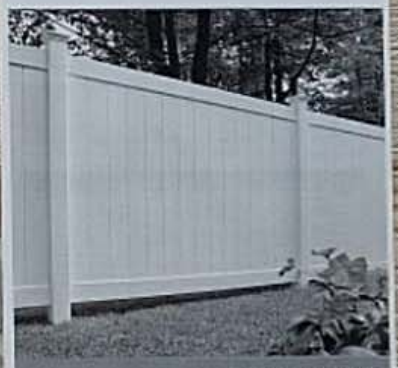


QUARRY GRAY

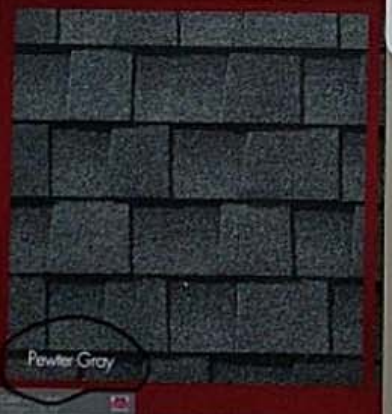
LP SmartSide ExpertFinish Trim & Siding

5/15/50 YEAR

LP SmartSide









CANTISSIMO OF CHASKA

Assisted Living and Memory Care Facility

Corner of Pioneer Trail and Hundertmark Road

BARRETTE Fencing

OUTDOOR LIVING - Retail Fence

Color: White

BORAL VERSETTA STONE

Mortarless Ledgestone

Color: Mission Point

SSTS
S² TRAFFIC SOLUTIONS

November 4th, 2021

To: **Todd Ofsthun, TCO Design**

From: **Katie Schmidt, PE**

Re: **DRAFT Traffic Analysis Memo–Cantissimo of Chaska Assisted Living Development, Chaska, MN**

Per your request, S² Traffic Solutions, LLC has conducted a traffic analysis for the proposed Cantissimo of Chaska Assisted Living development (termed "Proposed Project" in this memo) in Chaska, Carver County, MN. The Proposed Project is located in the southeast quadrant of the Pioneer Trail (CSAH 14) and Hundertmark Road intersection and will consist of an assisted living facility with 32 units and a maximum of 38 beds. Access to the Proposed Project will be provided via a driveway off of Hundertmark Road. **Figure 1**, Vicinity Map, and **Figure 2**, Site Plan, depict the location and site layout. This memorandum documents the existing conditions, the anticipated site-generated traffic from the Proposed Project and its distribution, and reviews the traffic operations at the study area intersections/site access for year 2023, the year after completion of the development. The study area intersections are:

- Pioneer Trail (CSAH 14) & Hundertmark Road – Signal
- Hundertmark Road & Target Access – Side-Street Stop-Control
- Hundertmark Road & Wilderness Drive/Louisa Court– Side-Street Stop-Control

Existing Conditions

The existing conditions of the roadways and intersection providing direct access to the Proposed Project in Chaska, MN were gathered and the following notes the specifics:

- **Pioneer Trail (CSAH 14)** – is under Carver County jurisdiction and is classified as a minor expander arterial with a 45-mph speed limit. Pioneer Trail runs east-west in the vicinity of the site and is a four-lane roadway to the west of Hundertmark Road and a two-lane roadway to the east. Pioneer Trail has turn lanes at major intersections and a 10-foot bituminous trail on the south side near the Proposed Project.
- **Hundertmark Road** – is a two-lane roadway and it runs north-south roadway in the vicinity of the site. Hundertmark Road is classified as a major collect with a speed limit of 35-mph south of Pioneer Trail and 30-mph north of Pioneer Trail. There is a 10-foot bituminous trail on the east side of the roadway.
- **Louisa Court/Wilderness Drive** – is a local neighborhood roadway providing residential access. It is one lane in each direction and speed limits vary between 15 to 20 mph.

The following notes the specifics for the intersections:

- **Pioneer Trail (CSAH 14) & Hundertmark Road** – is a four-legged signalized intersection with marked crosswalks on all legs with pushbutton activation for pedestrian crossing phases. The signal, which is operated by Carver County, is actuated and coordinated to the west with the Chaska Commons intersections and all left turns operate with Flashing Yellow Arrow phasing.

The eastbound approach has four lanes; a left turn lane (250' of storage), two through lanes and a right turn lane (200' of storage). The westbound approach has three lanes; a left turn lane (250' of storage), a through lane and a shared through/right turn lane (250' of storage). Both the northbound and southbound approaches have three lanes; a left turn lane (180' NB and 200' SB for storage), a through lane and a right turn lane (200' NB and 180' SB for storage). Just east of the intersection the two eastbound through lanes merge to one through lane. The existing signal timing parameters were received from Carver County and inputted into the traffic operations model, as well as the eastbound lane drop geometry.

- **Hundertmark Road & Target Access** – is a three-legged side-street stop-controlled intersection with Hundertmark Road free-flowing and Target Access stop-controlled. The eastbound approach (Target Access) is one lane; a shared left turn/right turn lane. The northbound approach has two lanes; a left turn lane (160' of storage) and a through lane. The southbound approach has one lane; a shared though/right turn lane. Access to the Proposed Project will be a future east leg of this intersection.
- **Hundertmark Road & Wilderness Drive/Louisa Court -** is a four-legged side-street stop-controlled intersection with Hundertmark Road free-flowing and Wilderness Drive/Louisa Court stop-controlled. Both the eastbound and westbound approaches have one lane; a shared left turn/through/right turn lane. Both the northbound and southbound approaches have two lanes; a left turn lane (150' NB and 50' SB for storage) and a shared through/right turn lane.

Turning movement traffic counts were conducted at the study area intersections during the week of October 25th, 2021, revealing the AM peak traffic hour occurs between 7:15 – 8:15 AM and the PM peak traffic hour occurs between 4:15 – 5:15 PM (See **Figure 3**, Existing Traffic Volumes).

A review of the existing crash history in ***City of Chaska's 2040 Comprehensive Plan*** was completed in relation to the study roadways. The comprehensive plan summarizes crash data from 2011 to 2015 and notes the Pioneer Trail/Hundertmark Road intersection is one of the top ten intersection crash locations in Chaska with a critical crash index of 0.40. The critical index (ratio of observed crash rate to the critical crash rate) is a key parameter used to determine if there are existing safety concerns. If the critical index is above 1.00 then additional analysis and observation of the intersection should be completed. Since the Pioneer Trail/Hundertmark Road intersection is well below the 1.00 threshold at 0.40 no safety improvements are recommended. Additionally, the left turn phasing at this signal has been update to flashing yellow operations since this crashes data was published and safety likely improved based on crash modification factor (CMF) research. This intersection should be monitored for future safety issues as background traffic grows.

Future Conditions

To quantify the impacts of the Proposed Project on the surrounding roadway system, it is necessary to first analyze traffic conditions that would be present on the roadway system without the inclusion of the Proposed Project. The anticipated construction completion date for the Proposed Project is 2022, thus the year 2023 was selected for analysis so as to compare traffic conditions after initial traffic patterns to and from the site have become established. To determine the future traffic conditions a review of 2018 to 2040 traffic forecasts in the ***City of Chaska's 2040 Comprehensive Plan*** was completed. The review indicates a 0.37% annual growth rate for Hundertmark Road and a 0.94% annual growth rate for Pioneer

Trail. To be conservative a 1% annual growth rate was applied to volumes on both roadways. **Figure 4** illustrates the 2023 No-Build traffic conditions with this growth rate applied to the existing volumes.

Trip Generation

The volume of vehicle trips generated by the Proposed Project has been estimated for the weekday AM and PM peak hours and on a daily basis using the data methodology described in the ***Trip Generation Manual***[1]. Table 1 summarizes the trip generation estimates.

Table 1 - Trip Generation

Land Use	Land Use Code	Size	Trips Generated:				
			AM peak		PM Peak		Weekday ADT
			Enter	Exit	Enter	Exit	
Assisted Living/Suburban	254	38 beds	5	3	4	6	99
Totals			**5**	**3**	**4**	**6**	**99**
			8		**10**		

* Per ITE's Trip Generation Manual, 10th Edition.

As shown in Table 1, the site will generate 8 new trips (5 entering and 3 exiting) during the morning traffic peak hour, 10 new trips (4 entering and 6 exiting) during the evening traffic peak hour and 99 daily trips. These trips are generated by employees, deliveries and visitors. It is noted that this small number of trips does not reach thresholds to require detailed traffic studies, such as this report, per MnDOT and ITE data. The Developer is providing the City with this additional data to help City staff, and the City Council make sound decisions during the approval process.

The new trips have been assigned to the surrounding roadways according to existing traffic patterns and the anticipated travel patterns for employees, visitors and deliveries. The majority of the site generated traffic is estimated to come from and go to the south on Hundertmark Road via the TH 212/Chestnut Street interchange. **Figure 5** illustrates the trip assignment, and **Figure 6** illustrates the 2023 Build conditions by combining the 2023 No-Build traffic on Figure 4 with the trip assignment on Figure 5.

Proposed Access

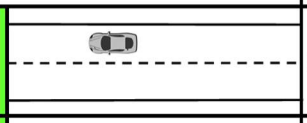
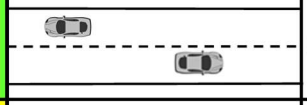
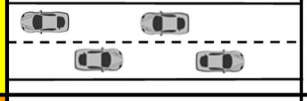
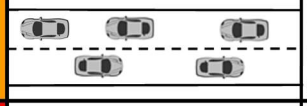
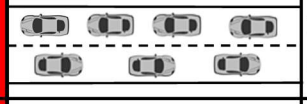
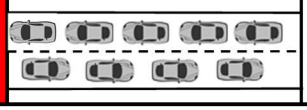
Access to the Proposed Project is via a driveway (one entering and existing lane) as an east leg of the Hundertmark Road & Target Access Intersection. With the driveway a 65' southbound left turn lane is proposed to be included from restriping on Hundertmark Road. Such a small amount of site-generated traffic from the site does not warrant a turn lane but it is being provide by the developer to increase safety. The design of the driveway will accommodate ambulances and delivery vehicles.

Traffic Operations

The operating conditions of transportation facilities, such as roadways, traffic signals, roundabouts and stop-controlled intersections, are evaluated based on the relationship of the theoretical capacity of a facility to the actual traffic volume on that facility. Various factors affect capacity including travel speed, roadway geometry, grade, number of travel lanes, and intersection control. The current standards for evaluating capacity and operating conditions are contained in ***Highway Capacity Manual***[2]. The procedures describe operating conditions in terms of driver delay represented as a Level of Service (LOS). Operations are given letter designations with "A" representing the best operating conditions and

[1] Trip Generation Manual, Institute of Transportation Engineers (ITE), 10th Edition
[2] Highway Capacity Manual (HCM), Transportation Research Board, 6th Edition

"F" representing the worst. Generally, level of service “D” represents the threshold for acceptable overall intersection operating conditions during a peak hour. The Chart on the following page summarizes the level of service and delay criteria for signalized and unsignalized intersections.

Level of Service		Description	Delay (sec)	
			Signalized	Unsignalized/ Roundabout
A		Primarily free-flow operation.	0-10	0-10
B		Reasonably unimpeded operation.	>10-20	>10-15
C		Stable operation. The ability to maneuver is more restricted than LOS B.	>20-35	>15-25
D		Less stable operation. Small increases in flow may cause large increases in delay and reduced speeds.	>35-55	>25-35
E		Unstable operation. Low speeds and considerable delay.	>55-80	>35-50
F		Congested operation. High delay and extensive queuing.	>80	>50

For side street stop-controlled intersections special emphasis is given to providing an estimate for the level of service of the minor approaches. Traffic operations at an unsignalized intersection with side street stop-control can be described two ways. First, consideration is given to the overall intersection level of service. This takes into account the total number of vehicles entering the intersection and the capability of the intersection to support these volumes. Second, it is important to consider the delay on the minor approaches, since the mainline does not have to stop. It is common for intersections with higher mainline traffic volumes to experience increased levels of delay and poor level of service on the side streets.

A final fundamental component of operational analyses is a study of vehicular queuing, or the line of vehicles waiting to pass through an intersection. An intersection can operate with an acceptable Level of Service, but if queues from the intersection extend back to block entrances to turn lanes or accesses to adjacent land uses, unsafe operating conditions could result. In this report, the Industry Design Standard 95th percentile queue length is used. The 95th Percentile Queue Length refers to that length of vehicle queue that has only a five-percent probability of occurring during an analysis hour.

This study has utilized the industry current Synchro/SimTraffic software package (11th Edition) to analyze the 2023 No-Build and Build conditions for both the AM and PM peak hours. It is noted, the reported results are from the aggregate of 10 SimTraffic simulations which use a random number generator to seed the network with vehicles. These results reflect dynamic conditions and are more accurate than the results of the static analysis reported by Synchro. Due to the random number generator results can sometimes show slightly better operations on minor movements under higher traffic conditions when

the intersections are operating well. This can be seen when delays and queues noted in the Build Scenario are slightly less than the No-Build Scenario.

Tables 2 summarizes the results of the 2023 No-Build conditions analyses in terms of Level of Service (LOS) and vehicle queuing for the worst movement during peak conditions.

Table 2 – 2023 No-Build Traffic Operations

Intersection	Overall/Worst Movement Los & Delay (Sec)			95th Percentile Queue
	Criteria	AM Peak Hour	PM Peak Hour	
Pioneer Tr (CSAH 14) & Hundertmark Rd (Signal)	*Overall*	B (10.3)	B (15.6)	NBR - 102' in AM
	Worst Movement	D (40.2) SBL	D (36.6) SBL	SBT - 148' in PM
Hundertmark Rd & Target Access (Side-Street Stop-Controlled)	*Overall*	A (1.0)	A (3.5)	EBR - 48' in AM
	Worst Movement	A (8.0) EBL	B (12.2) EBL	EBR - 73' in PM
Hundertmark Rd & Wilderness Dr/Louisa Ct (Side-Street Stop-Controlled)	*Overall*	A (0.7)	A (0.9)	WBL/T/R - 45' in AM
	Worst Movement	A (6.9) EBL	A (8.9) EBL	WBL/T/R - 38' in PM

- Level of Service reported from an average delay from 10 SimTraffic simulations for overall intersection and worst movement.
- 95th percentile queues are a result from an average of 10 SimTraffic simulations and the longest queue per intersection is reported.
- Existing signal timing parameters from Carver County were used in the model.

The results shown in Table 2 indicate the 2023 No-Build overall operations and worst movement operations of the study area intersection are providing acceptable LOS C or better for most movements, with manageable vehicle queuing. At the Pioneer Trail & Hundertmark Road signalized intersection the southbound approach experiences longer delays (LOS D) with manageable queues. This is common for side-streets on coordinated signal corridors and is considered acceptable as queuing is not an issue. If side-street queuing becomes an issue in the future it is recommended that the County update signal timing plans. No improvement measures are needed for No-Build traffic conditions.

As mentioned earlier, the estimated trip generation associated with the proposed development has been added to the No-Build traffic conditions to create the 2023 Build scenario. This scenario was also analyzed, and the results are summarized in Table 3.

Table 3 – 2023 Build Traffic Operations

Intersection	Overall/Worst Movement Los & Delay (Sec)			95th Percentile Queue
	Criteria	AM Peak Hour	PM Peak Hour	
Pioneer Tr (CSAH 14) & Hundertmark Rd (Signal)	*Overall*	B (10.3)	B (15.7)	SBL - 94' in AM
	Worst Movement	D (40.2) SBL	D (38.7) NBT	SBT - 149' in PM
Hundertmark Rd & Target/Project Access (Side-Street Stop-Controlled)	*Overall*	A (1.0)	A (3.5)	EBR - 45' in AM
	Worst Movement	A (8.8) WBL	B (12.3) EBL	EBR - 70' in PM
Hundertmark Rd & Wilderness Dr/Louisa Ct (Side-Street Stop-Controlled)	*Overall*	A (0.7)	A (0.9)	WBL/T/R - 45' in AM
	Worst Movement	A (8.3) EBL	A (9.4) EBL	WBL/T/R - 40' in PM

- Level of Service reported from an average delay from 10 SimTraffic simulations for overall intersection and worst movement.
- 95th percentile queues are a result from an average of 10 SimTraffic simulations and the longest queue per intersection is reported.
- Existing signal timing parameters from Carver County were used in the model.

With the addition of such a small amount of site-generated traffic operations will be very similar to the No-Build operations. The results shown in Table 3 indicate the 2023 Build overall operations and worst movement operations of the study area intersection are providing the same acceptable LOS C or better for most movements, with manageable vehicle queuing. As mentioned above for the No-Build conditions, the Pioneer Trail & Hundertmark Road signalized intersection experiences longer delays (LOS D) with manageable queues for the side-street movements, which is common on coordinated corridor. If side-street queuing becomes an issue in the future it is recommended that the County update signal timing plans. Operations at the proposed access location (east leg of the Hundertmark Road/Target Access intersection) are acceptable with minimal delay and queuing. No mitigation measures to

accommodate site-generated traffic beyond those associated with the short-left turn lane are recommended for the surrounding roadway network.

Conclusion

In conclusion, the proposed development has appropriate access to the site and to the surrounding roadway network. The traffic operational analysis indicates there is available capacity on the roadways surrounding the site to accommodate the minimal amount of site-generated traffic. No mitigations measures are recommended for year 2023 conditions. As background traffic volumes grow beyond year 2023 it is recommended that Carver County monitor the signal operations and updated timing plans as needed. It is noted that this small number of trips generated by the Proposed Project does not reach thresholds to require detailed traffic studies, such as this report, per MnDOT and ITE data. The Developer is providing the City with this additional data to help make sound decisions during the approval process.

Please contact Katie Schmidt at katie@s2traffic.com or 952-212-7625 with any questions.

Attachments: Figures 1-6

(Appendices with Traffic Counts, Trip Generation Data, Synchro/Simtraffic Worksheets are available upon request.)



Figure 1 - Vicinity Map



Figure 2 - Site Plan (By Others)

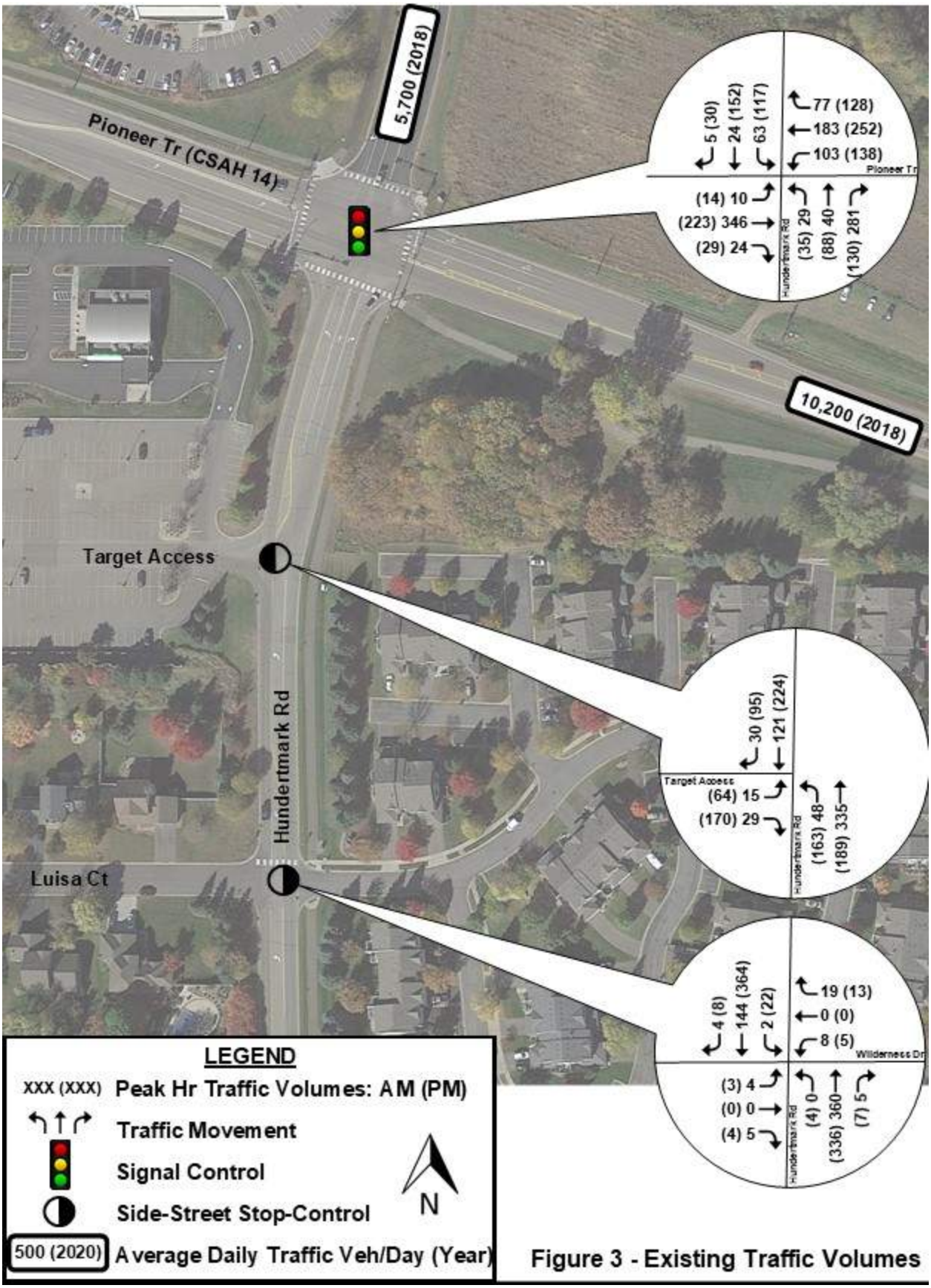


Figure 3 - Existing Traffic Volumes

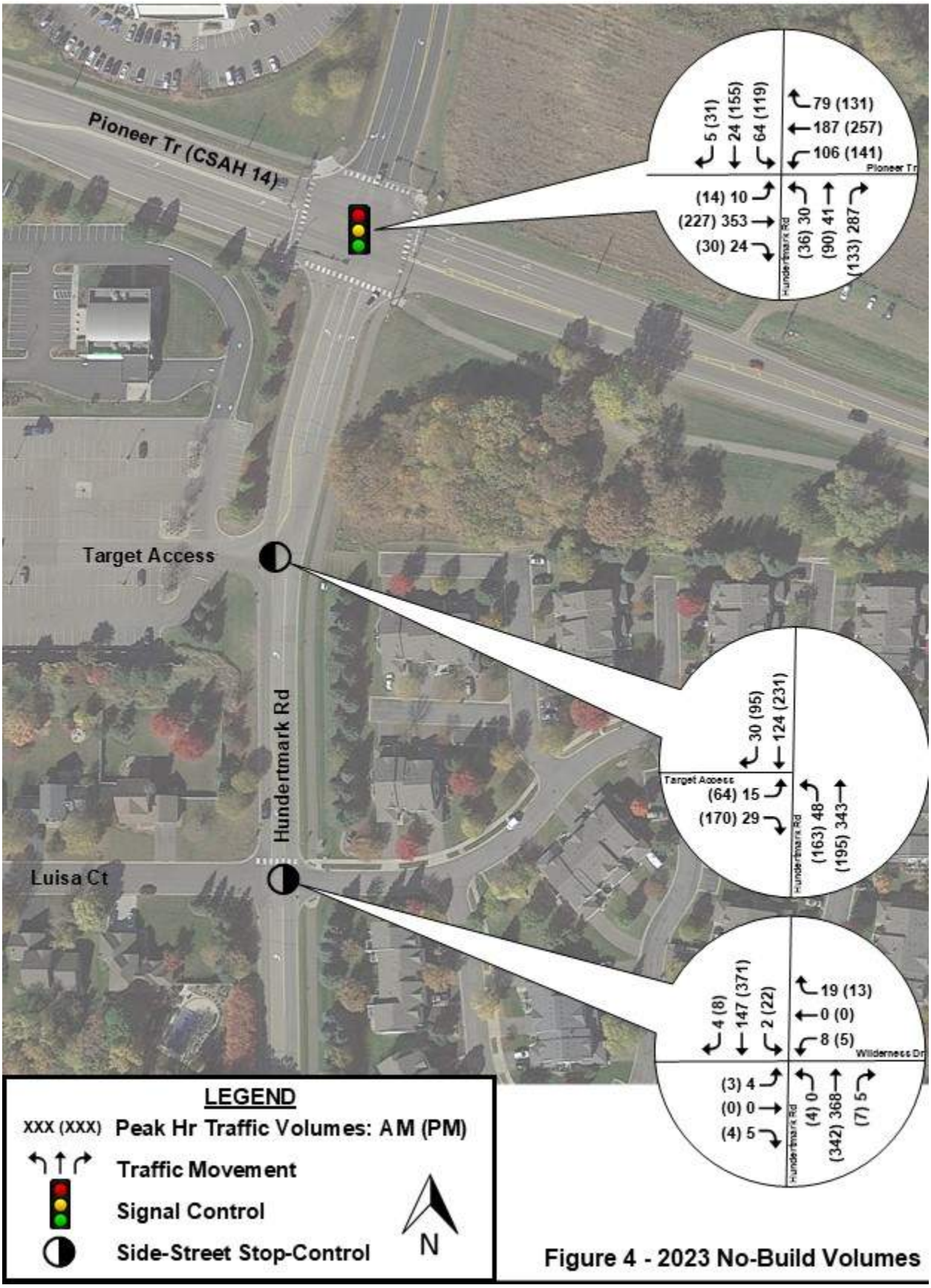


Figure 4 - 2023 No-Build Volumes

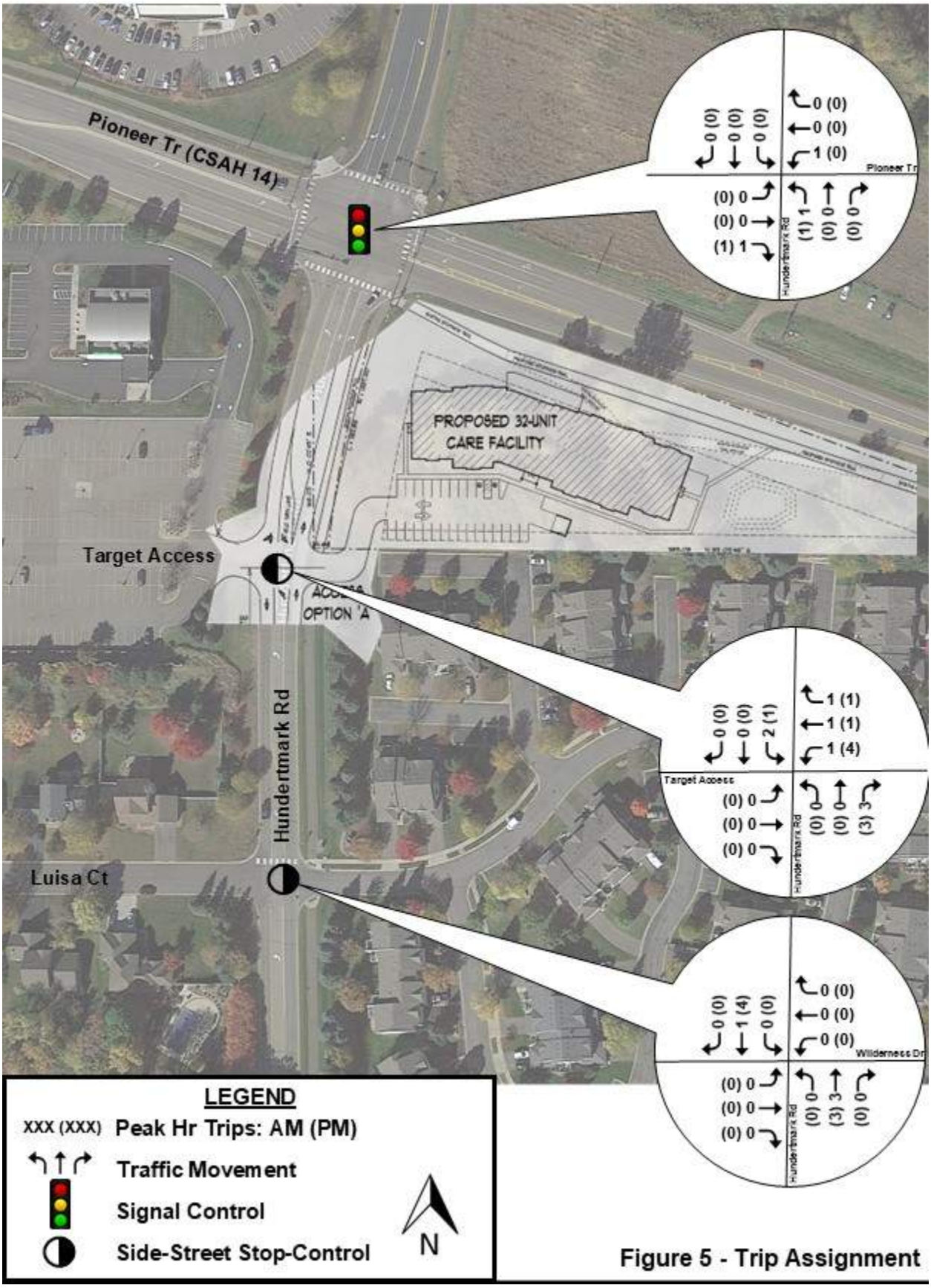


Figure 5 - Trip Assignment

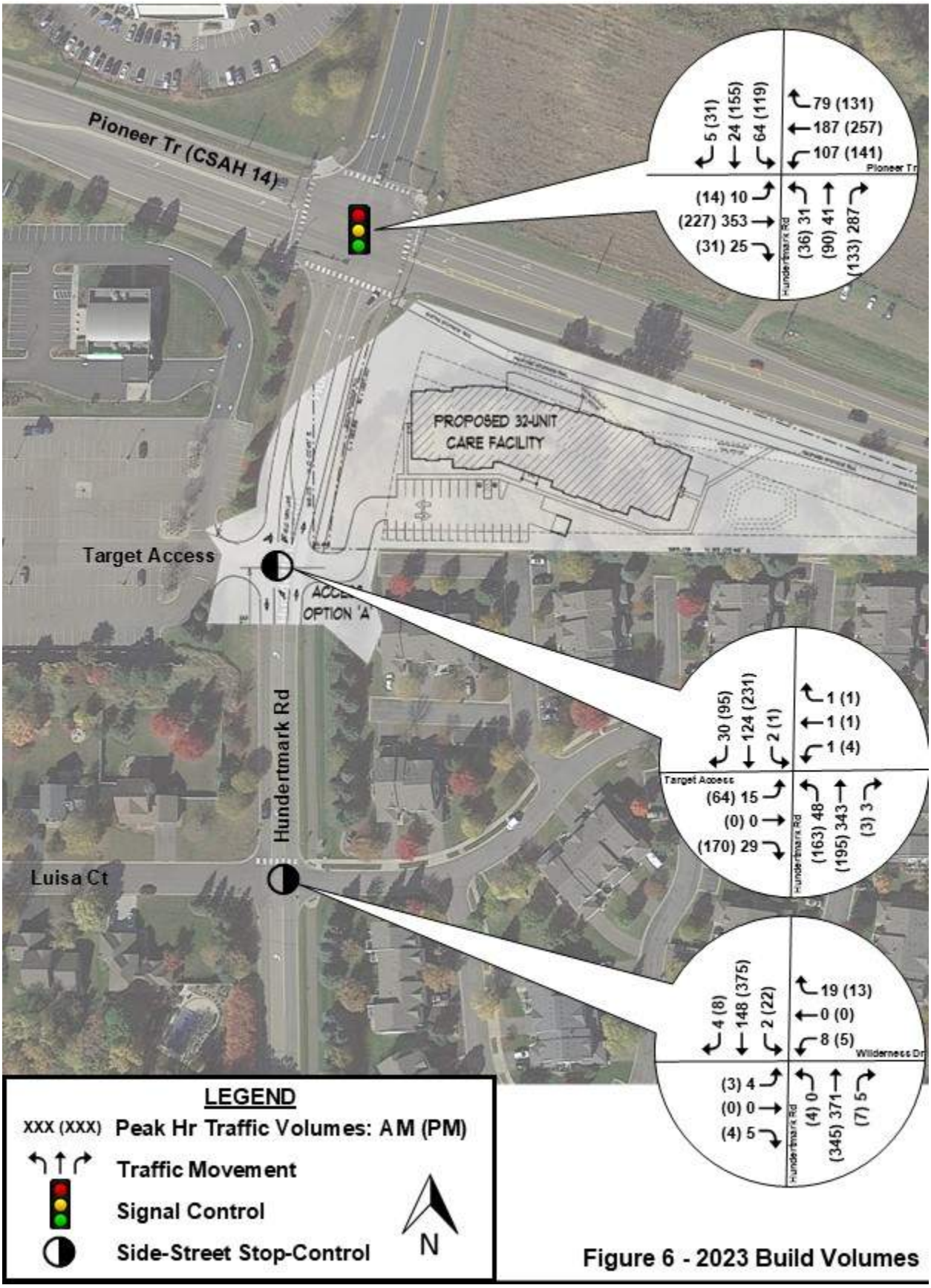


Figure 6 - 2023 Build Volumes



KAD LED
LED Area Luminaire

Buy American

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

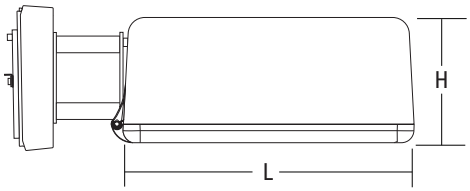
EPA: 1.2 ft² *(0.11 m²)*

Length: 17-1/2" *(44.5 cm)*

Width: 17-1/2" *(44.5 cm)*

Height: 7-1/8" *(18.1 cm)*

Weight (max): 36 lbs. *(16.4 kg)*



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®2 or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: KAD LED 40C 1000 40K R5 MVOLT SPD04 DDBXD

KAD LED

Series	LEDs	Drive current	CCT	Distribution	Voltage	Mounting[3]
KAD LED	20C[1] 20 LEDs 30C[1] 30 LEDs 40C 40 LEDs 60C 60 LEDs	530 530 mA[1] 700 700 mA 1000 1000 mA	30K 3000 K 40K 4000 K 50K 5000 K	R2 Type II R3 Type III R4 Type IV R5 Type V[2]	MVOLT[3] 277[4] 120[4] 347[1,3] 208[4,5] 480[1,3] 240[4,5]	**Shipped included** SPUMBAK___ Square pole universal mounting adaptor[6] RPUMBAK___ Round pole universal mounting adaptor[6] SPD___ Square pole RPD___ Round pole WBD___ Wall bracket[2] WWD___ Wood pole or wall 04 4" arm 06 6" arm 09 9" arm[5] 12 12" arm[6] **Shipped separately** DAD12P Degree arm (pole) DAD12WB Degree arm (wall) KMA Mast arm external fitter

Options

Shipped installed

- PER5 NEMA twist-lock five-wire receptacle only (no controls)[7,8,9]
- PER7 Seven-wire receptacle only (no controls)[7,8,9]
- SF Single fuse (120, 277, 347V)[4]
- DF Double fuse (208, 240, 480V)[4]
- PIR Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[3,10,11,12,13]
- PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[3,10,11,12,13]
- PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[3,10,11,12,13]
- PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[3,10,11,12,13]
- BL30 Bi-level switched dimming, 30%[3,9,10,11]
- BL50 Bi-level switched dimming, 50%[3,9,10,11]
- PNMTDD3 Part night, dim till dawn[3,11,16]
- PNMT5D3 Part night, dim 5 hrs[3,11,16]
- PNMT6D3 Part night, dim 6 hrs[3,11,16]
- PNMT7D3 Part night, dim 7 hrs[3,11,16]
- HS Houseside shield[17]

Shipped separately[17]

- WG Wire guard

Finish *(required)*

- DDBXD Dark bronze
- DBLXD Black
- DNAXD Natural aluminum
- DWHXD White
- DDBTXD Textured dark bronze
- DBLBXD Textured black
- DNATXD Textured natural aluminum
- DWHGXD Textured white

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Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [18]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [18]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [18]
DSHORT SBK U	Shorting cap [18]
KADLEDHS 20C U	Houseside shield for 20 LED unit
KADLEDHS 30C U	Houseside shield for 30 LED unit
KADLEDHS 40C U	Houseside shield for 40 LED unit
KADLEDHS 60C U	Houseside shield for 60 LED unit
KMA DDBXD U	Mast arm adapter (specify finish)
KADWG U	Wire guard accessory
PUMBAK DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)

For more control options, visit DTL and ROAM online.

**Round pole top must be 3.25" O.D. minimum.*

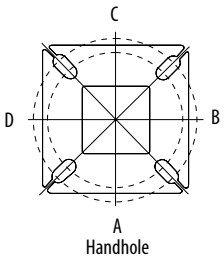
NOTES

1 20C or 30C LED are not available with 530 Drive Current and 347V or 480V.
2 Any Type 5 distribution, is not available with WBA.
3 Any PIRx with BL30, BL50 or PNMT, is not available with 208V,240V, 347V, 480V or MVOLT. It is only available in 120V or 277V specified.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
5 9" or 12" arm is required when two or more luminaires are oriented on a 90° drilling pattern.
6 Available as a separate combination accessory: PUMBAK (finish) U.
7 Mounting must be restricted to ±45° from horizontal aim per ANSI C136.10-2010. Not available with motion sensor.
8 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting cap included.
9 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR. Node with integral dimming. Shorting cap included.
10 PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control. Dimming driver standard. Not available with PER5 or PER7.
11 Maximum ambient temperature with 347V or 480V is 30°C.
12 Reference Motion Sensor table.
13 Reference PER table on page 3 to see functionality.
14 Requires an additional switched circuit with same phase as main luminaire power. Supply circuit and control circuit are required to be in the same phase.
15 Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7 or PNMT options.
16 Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7, BL30 or BL50.
17 Also available as a separate accessory; see Accessories information.
18 Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.

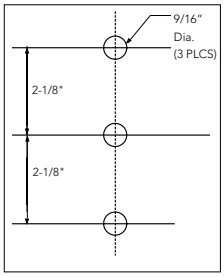
Drilling

Template #5

HANDHOLE ORIENTATION



Top of Pole



Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90° †	3 at 120°	3 at 90° †	4 at 90° †
2-3/8"	T20-190	T20-280	T20-290	T20-320 †	T20-390	T20-490
2-7/8"	T25-190	T25-280	T25-290	T25-320	T25-390	T25-490
4"	T35-190	T35-280	T35-290	T35-320	T35-390	T35-490

*** For round pole mounting (RPDXX) only.* *† Requires 9" or 12" arm.*

Pole drilling nomenclature: # of heads at degree from handhole (default side A)				
DM19	DM28	DM29	DM39	DM49
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Side B, C, & D	Sides A, B, C, D
Note: Review luminaire spec sheet for specific nomenclature				

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C	530 mA	35W	R2	4,140	1	0	1	118	4,446	1	0	1	127	4,473	1	0	1	128
			R3	4,123	1	0	1	118	4,427	1	0	1	126	4,455	1	0	1	127
			R4	4,128	1	0	1	118	4,433	1	0	1	127	4,460	1	0	1	127
			R5	4,381	2	0	1	125	4,704	3	0	1	134	4,734	3	0	1	135
	700 mA	45W	R2	5,271	1	0	1	117	5,660	1	0	1	126	5,696	1	0	2	127
			R3	5,250	1	0	2	117	5,637	1	0	2	125	5,672	1	0	2	126
			R4	5,256	1	0	2	117	5,644	1	0	2	125	5,679	1	0	2	126
			R5	5,578	3	0	1	124	5,990	3	0	1	133	6,027	3	0	1	134
	1000 mA	73W	R2	7,344	1	0	2	101	7,886	2	0	2	108	7,935	2	0	2	109
			R3	7,314	1	0	2	100	7,854	1	0	2	108	7,903	1	0	2	108
			R4	7,322	1	0	2	100	7,863	1	0	2	108	7,912	1	0	2	108
			R5	7,771	3	0	1	106	8,345	3	0	1	114	8,397	3	0	1	115
30C	530 mA	53W	R2	6,166	1	0	2	116	6,621	1	0	2	125	6,663	1	0	2	126
			R3	6,141	1	0	2	116	6,594	1	0	2	124	6,635	1	0	2	125
			R4	6,148	1	0	2	116	6,602	1	0	2	125	6,643	1	0	2	125
			R5	6,525	3	0	1	123	7,006	3	0	1	132	7,050	3	0	1	133
	700 mA	69W	R2	7,817	2	0	2	113	8,395	2	0	2	122	8,447	2	0	2	122
			R3	7,785	1	0	2	113	8,360	2	0	2	121	8,412	2	0	2	122
			R4	7,794	1	0	2	113	8,370	1	0	2	121	8,422	1	0	2	122
			R5	8,272	3	0	2	120	8,883	3	0	2	129	8,938	3	0	2	130
	1000 mA	108W	R2	10,755	2	0	2	100	11,549	2	0	2	107	11,621	2	0	2	108
			R3	10,711	2	0	2	99	11,502	2	0	2	106	11,574	2	0	2	107
			R4	10,724	2	0	2	99	11,515	2	0	2	107	11,587	2	0	2	107
			R5	11,381	3	0	2	105	12,221	4	0	2	113	12,297	4	0	2	114
40C	530 mA	71W	R2	8,156	2	0	2	115	8,758	2	0	2	123	8,812	2	0	2	124
			R3	8,122	2	0	2	114	8,722	2	0	2	123	8,776	2	0	2	124
			R4	8,132	1	0	2	115	8,732	1	0	2	123	8,786	1	0	2	124
			R5	8,630	3	0	2	122	9,267	3	0	2	131	9,325	3	0	2	131
	700 mA	94W	R2	10,286	2	0	2	109	11,045	2	0	2	118	11,114	2	0	2	118
			R3	10,244	2	0	2	109	11,000	2	0	2	117	11,069	2	0	2	118
			R4	10,256	2	0	2	109	11,013	2	0	2	117	11,081	2	0	2	118
			R5	10,884	3	0	2	116	11,688	4	0	2	124	11,761	4	0	2	125
	1000 mA	141W	R2	13,923	2	0	2	99	14,951	2	0	2	106	15,045	2	0	2	107
			R3	13,866	2	0	3	98	14,890	2	0	3	106	14,983	2	0	3	106
			R4	13,882	2	0	3	98	14,907	2	0	3	106	15,000	2	0	3	106
			R5	14,733	4	0	2	104	15,821	4	0	2	112	15,920	4	0	2	113
60C	530 mA	103W	R2	11,996	2	0	2	116	12,882	2	0	2	125	12,963	2	0	2	126
			R3	11,947	2	0	2	116	12,829	2	0	2	125	12,909	2	0	2	125
			R4	11,961	2	0	2	116	12,844	2	0	2	125	12,925	2	0	2	125
			R5	12,694	4	0	2	123	13,632	4	0	2	132	13,717	4	0	2	133
	700 mA	137W	R2	14,927	2	0	2	109	16,029	3	0	3	117	16,130	3	0	3	118
			R3	14,866	2	0	3	109	15,964	2	0	3	117	16,063	2	0	3	117
			R4	14,884	2	0	2	109	15,982	2	0	3	117	16,082	2	0	3	117
			R5	15,796	4	0	2	115	16,962	4	0	2	124	17,068	4	0	2	125
	1000 mA	216W	R2	19,328	3	0	3	89	20,754	3	0	3	96	20,884	3	0	3	97
			R3	19,248	3	0	3	89	20,669	3	0	4	96	20,799	3	0	4	96
			R4	19,271	3	0	3	89	20,693	3	0	4	96	20,823	3	0	4	96
			R5	20,452	4	0	2	95	21,962	4	0	2	102	22,099	4	0	2	102

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **KAD LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	KAD LED 60C 1000			
	1.0	0.91	0.86	0.76
	KAD LED 40C 1000			
	1.0	0.93	0.88	0.79
	KAD LED 60C 700			
	1.0	0.98	0.97	0.94

Electrical Load

			Current (A)					
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
20	530	35	0.30	0.18	0.16	0.15	-	-
	700	45	0.39	0.23	0.20	0.18	0.15	0.12
	1000	73	0.61	0.35	0.31	0.27	0.22	0.17
30	530	53	0.44	0.26	0.23	0.20	-	-
	700	69	0.58	0.34	0.29	0.26	0.21	0.16
	1000	108	0.90	0.52	0.46	0.40	0.32	0.24
40	530	71	0.60	0.35	0.32	0.29	0.21	0.16
	700	94	0.79	0.46	0.41	0.36	0.27	0.20
	1000	141	1.18	0.68	0.59	0.52	0.42	0.30
60	530	103	0.87	0.50	0.44	0.39	0.29	0.22
	700	137	1.15	0.66	0.58	0.51	0.40	0.29
	1000	216	1.81	1.04	0.92	0.81	0.63	0.47

NOTE: All ratings in this table are for a nominal system operated at 25°C ambient temperature. Current and power specifications in this table do not include branch circuit derating specified in the National Electrical Code. Please observe all applicable electrical codes and ratings.

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*For use when motion sensor is used as dusk to dawn control						

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⊘	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⊘	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

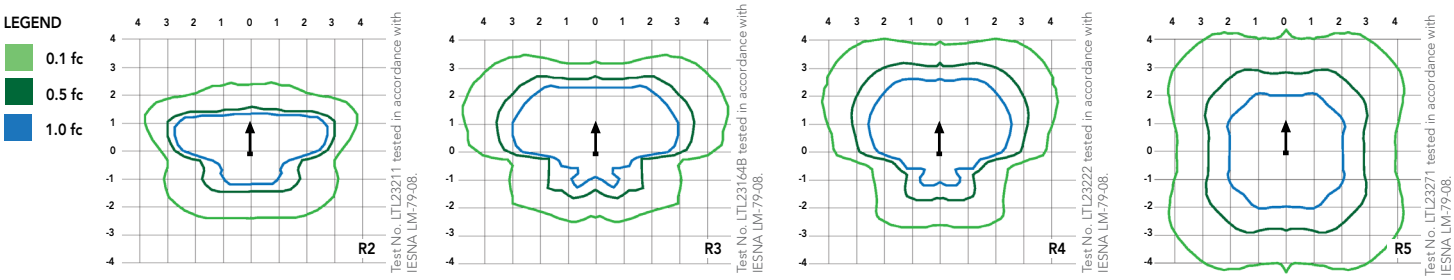
✔ Recommended
⊘ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KAD LED homepage.

Isofootcandle plots for the KAD LED 60C 1000 40K. Distances are in units of mounting height (20').



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FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings and long life of the KAD LED area luminaire make it a reliable choice for illuminating streets, walkways, parking lots, and surrounding areas.

CONSTRUCTION
Single-piece die-cast, aluminum housing with contoured edges has a 0.12" nominal wall thickness. Die-cast door frame has an impact-resistant, tempered glass lens that is fully gasketed with one piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded refractive acrylic lenses are available in four distributions. Light engines are available in standard 4000K, 3000K or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION
Included universal mounting block and extruded aluminum arm facilitate quick and easy installation using nearly any existing drilling pattern. Stainless steel bolts fasten the luminaire to the mounting block securing it to poles or walls. The KAD LED can withstand up to a 1.5 G vibration load rating per ANSI C136.31. The KAD LED also utilizes the standard K-Series (Template #5) for pole drilling.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient.
DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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WST LED

Architectural Wall Sconce

Buy American

Catalog Number	
Notes	
Type	

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

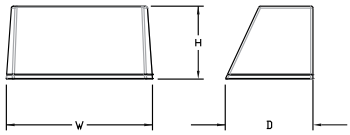
Luminaire

Height: 8-1/2″ *(21.59 cm)*

Width: 17″ *(43.18 cm)*

Depth: 10-3/16″ *(25.9 cm)*

Weight: 20 lbs *(9.1 kg)*

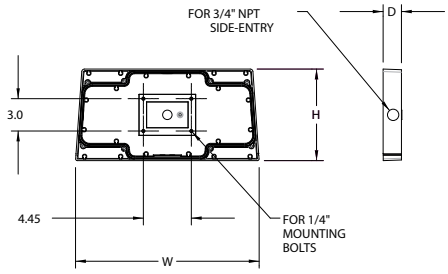


Optional Back Box (PBBW)

Height: 8.49″ *(21.56 cm)*

Width: 17.01″ *(43.21 cm)*

Depth: 1.70″ *(4.32 cm)*

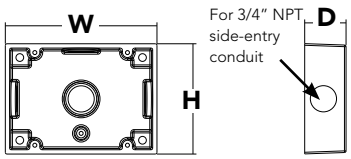


Optional Back Box (BBW)

Height: 4″ *(10.2 cm)*

Width: 5-1/2″ *(14.0 cm)*

Depth: 1-1/2″ *(3.8 cm)*



Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

See ordering tree for details.

A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

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A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

WST LED					
Series	**Performance Package**	**Color temperature**	**Distribution**	**Voltage**	**Mounting**
WST LED	P1 1,500 Lumen package P2 3,000 Lumen package P3 6,000 Lumen package	27K 2700 K 30K 3000 K 40K 4000 K 50K 5000 K	VF Visual comfort forward throw VW Visual comfort wide	MVOLT[1] 120[2] 208[2] 240[2] 277[2] 347[2] 480[2]	**Shipped included** (blank) Surface mounting bracket **Shipped separately** BBW Surface-mounted back box[3] PBBW Premium surface-mounted back box[3,4]

Options

NLTAIR2 PIR	nLIGHT AIR Wireless enabled motion/ambient sensor for 8'-15' mounting heights[5,6,7]
NLTAIR2 PIRH	nLIGHT AIR Wireless enabled motion/ambient sensor for 15'-30' mounting heights[5,6,7]
PE	Photoelectric cell, button type[8]
PER	NEMA twist-lock receptacle only (controls ordered separate)[9]
PER5	Five-wire receptacle only (controls ordered separate)[9]
PER7	Seven-wire receptacle only (controls ordered separate)[9]
PIR	Motion/Ambient Light Sensor, 8-15' mounting height[5,6]
PIR1FC3V	Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[5,6]
PIRH	180° motion/ambient light sensor, 15-30' mounting height[5,6]
PIRH1FC3V	Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[5,6]
SF	Single fuse (120, 277, 347V)[2]
DF	Double fuse (208, 240, 480V)[2]
DS	Dual switching[10]
DMG	0-10V dimming extend out back of housing for external control (control ordered separate)[11]
E7WH	Emergency battery backup, Non CEC compliant (7W)[7]
E7WC	Emergency battery backup, CA Title 20 Noncompliant (cold, 7W)[7,12]
E7WHR	Remote emergency battery backup, CA Title 20 Noncompliant (remote 7W)[7,13]
E20WH	Emergency battery pack 18W constant power, Certified in CA Title 20 MAEDBS[7]
E20WC	Emergency battery pack -20°C 18W constant power, Certified in CA Title 20 MAEDBS[7,12]
E23WHR	Remote emergency battery backup, CA Title 20 Noncompliant (remote 20W)[7,12,14]
LCE	Left side conduit entry[15]
RCE	Right side conduit entry[15]
BAA	Buy America(n) Act Compliant

Shipped separately

RBPW	Retrofit back plate[3]
VG	Vandal guard[15]
WG	Wire guard[15]

Finish *(required)*

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DSSXD	Sandstone
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white
DSSTXD	Textured sandstone

Accessories

Ordered and shipped separately.

WSTVCPBBW DDBXD U	Premium Surface - mounted back box
WSBBW DDBTXD U	Surface - mounted back box
RBPW DDBXD U	Retrofit back plate
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[17]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[17]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[17]

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
3. Also available as a separate accessory; see accessories information.
4. Top conduit entry standard.
5. Not available with VG or WG. See PER Table.
6. Reference Motion Sensor table.
7. Not available with 347/480V.
8. Need to specify 120, 208, 240 or 277 voltage.
9. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
10. Not available with Emergency options, PE or PER options.
11. DMG option not available with standalone or networked sensors/controls.
12. Battery pack rated for -20° to 40°C.
13. Comes with PBBW.
14. Warranty period is 3-years.
15. Not available with BBW.
16. Must order with fixture; not an accessory.
17. Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table.

Emergency Battery Operation

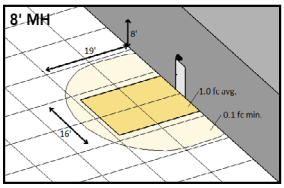
The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

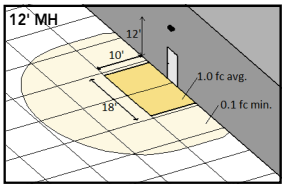
All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of NFPA 70/NEC 2008 - 700.16

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

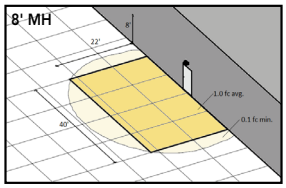
The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

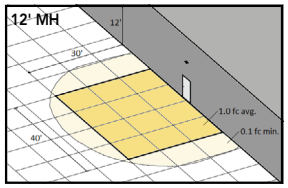
10' x 10' Gridlines
8' and 12' Mounting Height





WST LED P1 27K VF MVOLT E7WH





WST LED P2 40K VF MVOLT E20WH

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.95	>0.92	>0.87

Electrical Load

Performance package	System Watts	Current (A)					
		120	208	240	277	347	480
P1	11	0.1	0.06	0.05	0.04	---	---
	14	---	---	---	---	0.04	0.03
P1 DS	14	0.12	0.07	0.06	0.06	---	---
P2	25	0.21	0.13	0.11	0.1	---	---
	30	---	---	---	---	0.09	0.06
P2 DS	25	0.21	0.13	0.11	0.1	---	---
P3	50	0.42	0.24	0.21	0.19	---	---
	56	---	---	---	---	0.16	0.12
P3 DS	52	0.43	0.26	0.23	0.21	---	---

Motion Sensor Default Settings

Option	Dimmed State	High Level (when triggered)	Photocell Operation	Ramp-up Time	Dwell Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	3 sec	5 min	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	3 sec	5 min	5 min

*for use with site wide Dusk to Dawn control

PER Table

Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion	⊘	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof*	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof* with Motion	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture

✓ Recommended

⊘ Will not work

⚠ Alternate

*Futureproof means: Ability to change controls in the future.

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts.

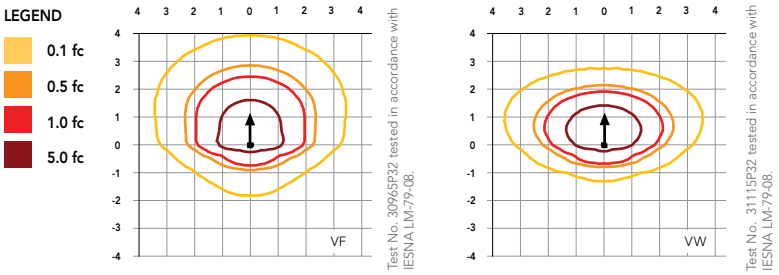
Performance Package	System Watts (MVOLT[1])	Dist. Type	27K (2700K, 70 CRI)					30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	12W	VF	1,494	0	0	0	125	1,529	0	0	0	127	1,639	0	0	0	137	1,639	0	0	0	137
		VW	1,513	0	0	0	126	1,548	0	0	0	129	1,659	0	0	0	138	1,660	0	0	0	138
P2	25W	VF	3,163	1	0	1	127	3,237	1	0	1	129	3,469	1	0	1	139	3,468	1	0	1	139
		VW	3,201	1	0	0	128	3,276	1	0	0	131	3,512	1	0	0	140	3,512	1	0	0	140
P3	50W	VF	6,025	1	0	1	121	6,165	1	0	1	123	6,609	1	0	1	132	6,607	1	0	1	132
		VW	6,098	1	0	1	122	6,240	1	0	1	125	6,689	1	0	1	134	6,691	1	0	1	134

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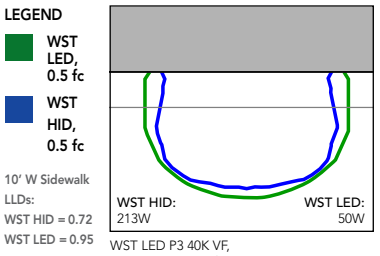
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's WST LED homepage.

Isofootcandle plots for the WST LED P3 40K VF and VW. Distances are in units of mounting height (10').



Distribution overlay comparison to 175W metal halide.



WST LED P3 40K VF,
WST 175M FT Probe, 12' Mounting Ht

FEATURES & SPECIFICATIONS

INTENDED USE
The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION
The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine(s) consist of 98 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L87). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

INSTALLATION
A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. PIR and back box options are rated for wet location. Rated for -30°C to 40°C ambient.

DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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Proposed Cantissimo Easement

From: Mary Myss (marymyss@yahoo.com)

To: todd@tcodesign.net; ehanson@chaskamn.com; kringwald@chaskamn.com; mclark@chaskamn.com; harvlois@gmail.com; wmjhope@hotmail.com; jefff@citiesmanagement.com; sillisrsu22@hotmail.com

Cc: marymyss@yahoo.com

Date: Thursday, November 18, 2021, 06:29 PM CST

Hi Todd and Elizabeth,

Attached you'll find the results of an email that was sent to Pioneer Pointe homeowners. I asked them to review the proposed easement giving access to the proposed Cantissimo development directly across from the Target entrance. I asked them if they would support granting the required easement provided the current easement would be vacated and a privacy fence would be built between Pioneer Pointe's townhouses and the entry road for Cantissimo.

The names and addresses of all respondents were included to validate the authenticity of the poll.

Please keep us posted of all further developments. We all look forward to moving forward with a mutually beneficial solution.

On behalf of Pioneer Pointe residents

Respectfully submitted,

MaryMyss

Easement votes PDF.pdf
33.7kB

EASEMENT SURVEY-PIONEER POINTE

“Yes” votes- Supporting the proposed easement across from Target

Alan Niebeling
Kaylyn Niebeling
379 Wagon Wheel Drive

Will Hope
Jackie Hope
421 Wilderness Drive

Lois Pankratz
373 Campfire Curve

Patti Frauendienst

Raven Rader
Les Rader
323 Campfire Curve

Jerry Julius
415 Wilderness

Marya Johanneson
482 Wilderness

Keith Maetzold
Marge Maetzold
494 Wilderness

Elmer Young
Mary Ann Young
489 Wilderness

Patti Martinovich

Doreen Gorghuber
342 Campfire

Dale Knudson
Sharon Knudson
479 Wilderness

Mary Starr
446 Wilderness

Renee Maass
374 Wilderness

Connie Luck
335 Wagon Wheel

John Mullen
Renee Mullen
346 Campfire

Nancy Votava
410 Wilderness Drive

Clark Grant
Annette Grant
449 Wilderness

Susan Ellingson
323 Wagon Wheel Lane

Mark Hoffman
Peggy Hoffman
351 Wagon Wheel Lane

Dan Peterson
475 Wilderness

Guy Costa
Sylvia Costa
499 Wilderness

Fred Byers
Lorna Byers
487 Campfire

David Christensen
340 Wilderness

Greg Moore
2742 Wagon Wheel Curve

Richard Kruger
303 Wagon Wheel Lane

Jeffrey Walker
Kathryn Walker
2713 Wagon Wheel Curve

Jim Perrone
Julie Perrone
311 Wagon Wheel Lane

Jim Glover
Susie Glover
409 Campfire

Paul Schlüeter
Gayle Schlueter
427 Campfire

Norm Melvin
Terri Melvin
493 Wilderness

Andy Strong

2764 Wagon Wheel Trail

Brian Olson
345 Wilderness

Jim Rightler
Barbara Rightler
343 Wagon Wheel Lane

Cheryl Spaulding
463 Campfire

Adrienne Klehr
453 Wilderness

Dale Kutter
Diane Kutter
359 Wagon Wheel

Patty Miller
483 Wilderness

Francoise Rausis Exsted
Craig Rausis Exsted
496 Wilderness Drive

Wayne Larson
Carolyn Larson
2784 Wagon Wheel Trail

Bruce Nelson
Bonnie Nelson
389 Campfire

Deann Bellanger
367 Wagon Wheel Lane

Kathleen Marier

381 Campfire

Patty Jochum
Rick Willette
341 Campfire

Mary Myss
347 Campfire

Jeff Altenburg
Katie Altenburg
411 Campfire Curve

Deb Hetherington
Jim Hetherington
401 Campfire Curve

Pat Denison
419 Campfire Curve

“NO” VOTES-AGAINST THE PROPOSED EASEMENT

Michael Kujak
Adria Kujak
467 Campfire

Proposed Cantissimo Easement

From: Mary Myss (marymyss@yahoo.com)

To: todd@tcodesign.net; ehanson@chaskamn.com; kringwald@chaskamn.com; mclark@chaskamn.com; harvlois@gmail.com; wmjhope@hotmail.com; jefff@citiesmanagement.com; sillisrsu22@hotmail.com

Cc: marymyss@yahoo.com

Date: Thursday, November 18, 2021, 06:29 PM CST

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33.7kB

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“NO” VOTES-AGAINST THE PROPOSED EASEMENT

Michael Kujak
Adria Kujak
467 Campfire

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: **Oak Creek (fka Sagewood 3rd) – Preliminary Plat & Rezoning**

Applicant: DR Horton

Location: North of Engler Boulevard/Co Rd 10, west of Clover Preserve Drive

Case No.: 2022-20

Synopsis: Applicant seeks to obtain approval of a 102 lot development on 52 acres of land in Chaska and the orderly annexation Laketown Township area

Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt Resolution and Ordinance

---

BACKGROUND

At its May 15, 2000 City Council meeting the Clover Ridge Concept Plan was approved. The Concept Plan showcased an assortment of housing and densities throughout the development, which included the portion of Kelzer's site that is being looked at tonight.

In July of 2002 the Final Plat for Clover Preserve 2nd Addition was approved, which encompassed the lots on Sophia Drive and a street stub that ended at the Chaska-Laketown Township border. Several signs were put along the edge of Sophia Drive and Kelzer's land to inform residents that the area will be developing.



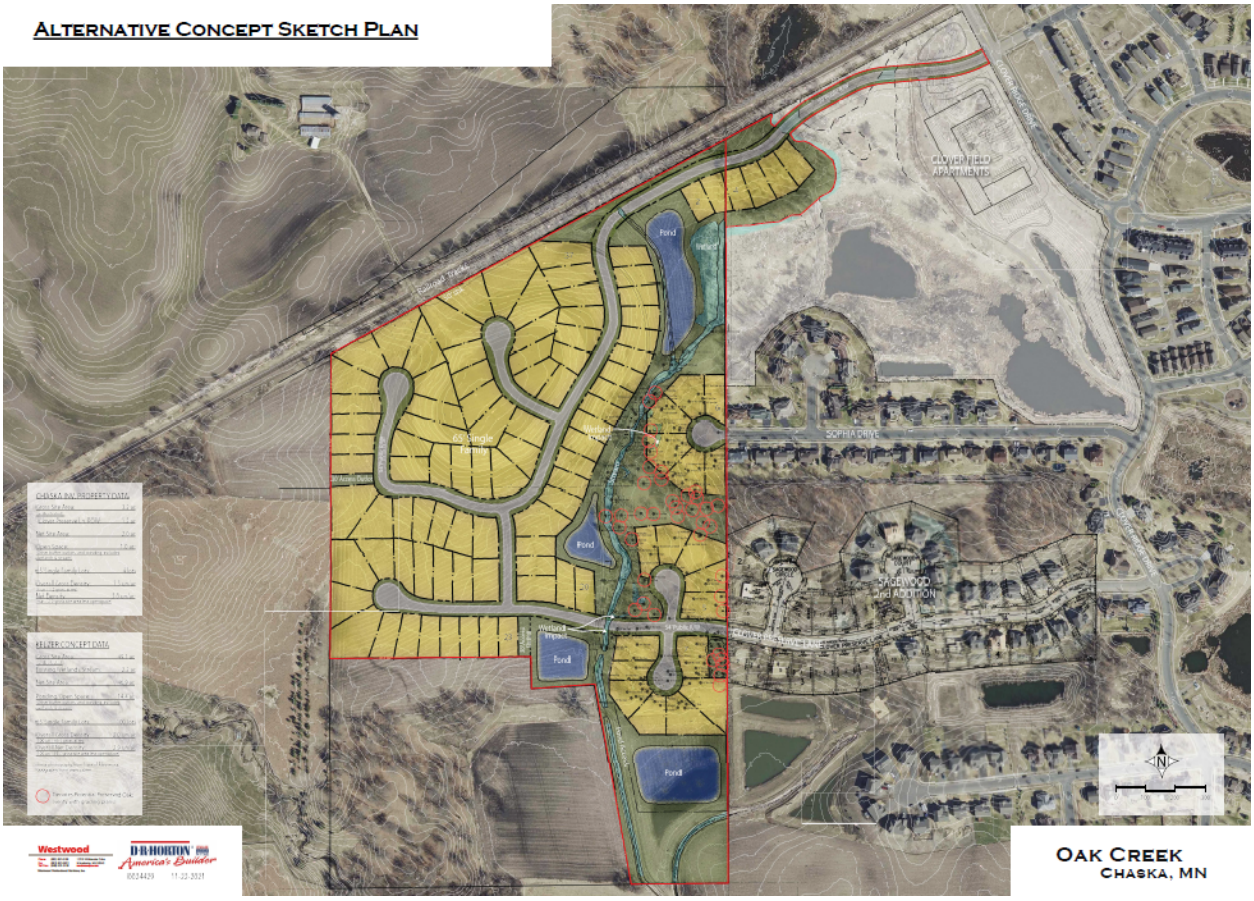
In May 2018 the concept plan for Sagewood was approved, which encompassed the 1st and 2nd additions. The 1st and 2nd additions were the extension and termination of Clover Field Circle, and the extension of Clover Preserve Lane up to the western border of Chaska abutting Laketown Township. The Final Plat for Sagewood was approved in October 2018, and the final plat for Sagewood 2nd was approved in April 2019.

In May 2020, the original concept plan for Sagewood 3rd was approved that showed the westerly extension of Clover Preserve Lane and Sophia Drive into the orderly annexation area of Laketown Township. 83 lots on approximately 42 acres were shown in this concept plan. Concerns were raised regarding development access, traffic, tree preservation, and school capacity. The developer was specifically asked to explore more development access opportunities. A copy of the May 2020 Concept Plan is shown on the next page.



May 2020 Concept Plan

In December 2021, a revised concept plan of Oak Creek (fka Sagewood 3rd addition) was approved, which included a 107-lot development on 52 acres of land, plus the inclusion of a 162-unit apartment building (Clover Field Apartments) on Clover Ridge Drive. Oak Creek was approved as a single-family development on both the Kelzer property and a portion of the Chaska Investment property. The apartments were proposed entirely on the Chaska Investment property. A new road extension was also shown to connect into Clover Ridge Drive across from Romeo Court that would provide an additional means of ingress/egress out of the single-family development, which was reactionary to the comments received during the May 2020 review. The December 2021 Concept Plan showed both projects reviewed together so that the property owners/developers could get an understanding of how a road extension could fit into the context of the future multi-family site where Clover Field Apartments was proposed.



December 2021 Concept Plan

Tonight we are looking at the development of both properties, however, they will be reviewed as separate applications. This is the request for the single-family development, Oak Creek.

Because the Kelzer property is located in the orderly annexation area of Laketown Township, it was required that this property be annexed into Chaska prior to preliminary plans being approved. The property has since been annexed as of March 2022.

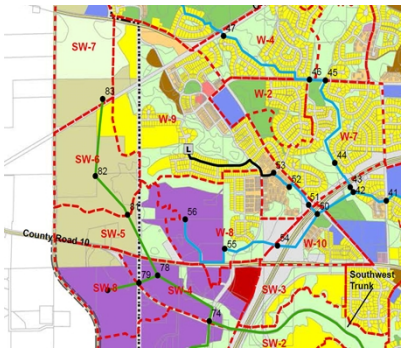
CHANGES SINCE DECEMBER 2021 CONCEPT PLAN

The following changes have occurred since the December 2021 concept plan approvals:

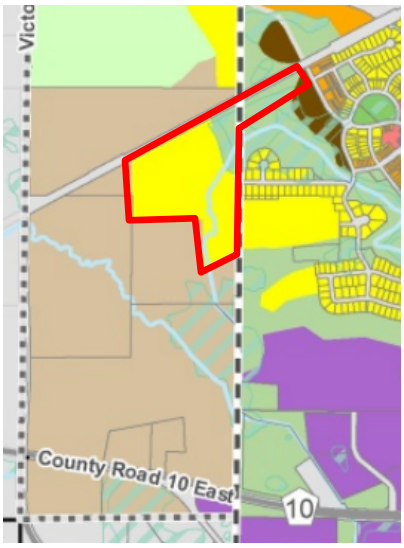
- Road Access; the December 2021 concept plan showed 3 separate access points into the Oak Creek development; one main road access extending from Clover Ridge Drive; one access from Sophia Drive serving 6 lots on a cul de sac; and one access from Clover Preserve Lane. Since road access into the development was a major concern from the adjacent neighbors, the developer has modified the plans. The road extension from Clover Ridge Drive (now known as Oak Creek Drive) will now be a dead end access serving a majority of the development (84 lots). The cul de sac on Sophia Drive will serve 5 lots. And the extension from Clover Preserve Lane will now dead end into two cul de sacs serving 13 lots.
- Traffic; a traffic study was completed for this development. The study concluded that the project will have appropriate access to the sites and to the surrounding roadway

network. The traffic operational analysis indicates there is available capacity on the roadways surrounding the site to accommodate site-generated traffic.

- Lot Count; the new plan is showing a decreas in lots from December 2021. The December 2021 concept plan showed 107 lots. The new plan is showing 102 lots, which is a 5 lot reduction. One of those eliminated lots was on Sophia Drive's proposed cul de sac.
- Tree Preservation; the preliminary plan is showing that 12 additional trees (mostly oaks) can be preserved compared to the December 2021 concept plan. These additional trees are mainly situated on the rear yards of the lots on Sophia Drive's cul de sac.
- Jonathan & Homeowners Assocation; the developer and Jonathan have been actively discussing the potential of Oak Creek to be absorbed into the Jonathan Association. The developer believes a resolution will be completed by the next month. If Oak Creek is not absorbed into Jonathan then DR Horton will create their own HOA to maintain the elements of their neighborhood (park, tree preservation areas and trails).



Sewer Plan

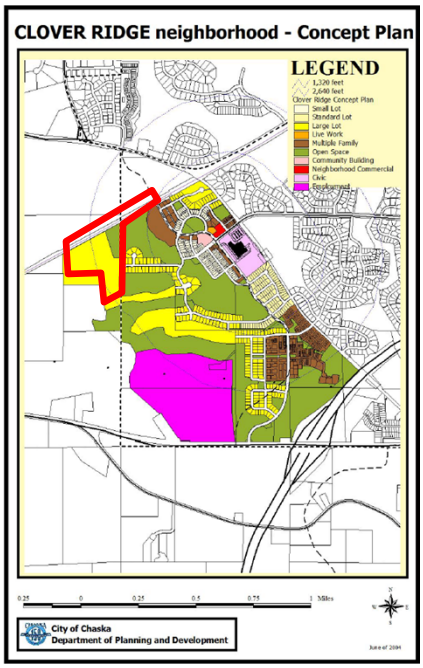


Excerpt from 2040 Land Use Plan

Neighborhood Meeting November 18, 2021:
DR Horton and Chaska Investments conducted a neighborhood meeting for their concept plan on November 18, 2021. In sum, there were concerns on traffic, access, and building height for the apartments.

Project Goals
The goals of the Oak Creek project include the following:

- Providing a seamless transition of road and pedestrian connections
- Housing design and lot sizes that will complement the existing 2-story homes on larger lots
- Creating a neighborhood layout that is sensitive to the existing conditions, including availability of utilities, natural grades and drainage patterns
- Preservation of trees and buffer to existing homes.
- Enhancement of a small community feel



Comprehensive Plan & Clover Ridge Concept Plan
The Comprehensive Plan guides these areas to be Low Density Residential. The proposal tonight is consistent with this guidance. The Clover Ridge concept plan also guided this area to be standard lot residential, which the proposal is consistent with. The Clover Ridge neighborhood was approved in May 2000. In September of 2002 it was

amended to show that the Kelzer site to the south would be developed for Employment (ie. Business Park), and the Kelzer site to the west would be developed for Low Density Residential as shown in the red outline of the attached Clover Ridge Concept Plan. This amendment was due as a result of an assessment agreement between the City and the Kelzer family. The delineation of this low-density residential area was dictated by the sewer capacity that could reach those limits. See sewer plan above for reference.

Use of the Comprehensive Plan

The primary use of the Comprehensive Plan is to be a general policy document for future growth and development within the City. Comprehensive Plan's are not binding, but rather guiding tools when development comes in. Chaska's Comprehensive Plan is intended to be flexible and responsive to changing conditions. It needs to be continually referenced, updated, and used as a guide. It functions as an overall course or path, and is intended to provide direction, rather than dictating specific activities or precise decision-making.

To that end, when development comes in, plans are looked at more closely and with more technical information to understand the raw details of a specific site (developability vs non-developability). The details that emerge from plans (i.e. wetland and wooded steep slope delineations) may differentiate from the layout/lines of the Comprehensive Plan. It is common, if not practical, that sites layouts, and lines, may change slightly from what the Comprehensive Plan shows based on what technical information reveals. Comprehensive Plans are not binding for that reason.

As it relates to this project, the Comprehensive Plan shows that the subject area is guided to be Low Density Residential and Open Space. The developer has completed a wetland delineation report that reviewed the wetlands on site. The conclusion of this report showed that there were buildable areas where the Comprehensive Plan showed Open Space. This would be an example of technical data differentiating from the layout of the Comprehensive Plan.

CURRENT PROPOSAL

Preliminary Plat and Rezoning is being requested for the Oak Creek project. The 102-lot Oak Creek proposal on approximately 52-acres of property is located north of Engler Boulevard/County Road 10 and west of Clover Preserve Drive and Sophia Drive. This area is now considered to be a part of Chaska and no longer in the orderly annexation area of Laketown Township as of March 2022.

Adjacent properties

The site is bound on the north by the Twin Cities & Western railway and Steve Kelzer's farm property; to the west by Victoria Drive (CR 11), the Brose family farm and the remaining portion of Kelzer's land; the south by Kelzer's farmland, land owned by Cal Haasken, and the homes on Sophia Drive; the east by residential in Clover Ridge and Sagewood.

Existing Conditions

The nearly 50-acre site is located to the west of the Sagewood and Clover Preserve neighborhoods and south of the Twin Cities & Western Railroad line. The site is currently used for agricultural purposes. The site naturally drains to the creek located along the west side of the side and ultimately off-site to the south.

The southerly portion of the Kelzer Property contains an area of trees. A tree survey indicates approximately 219 trees of varying sizes and species that are evenly distributed throughout. The majority is Oak. The remaining species include a combination of Cedar, Basswood, Ash and Elm among a few others. The average size of these trees are averaging around 20-35 inches in caliper. There is also a 'Heritage Tree' noted on the southwest corner of the site outside of the development area. This tree has been noted as one of the oldest trees in the community, and plans to remain.

Poor soils were noted on the southerly most tip of the subject site. Because of this the developer will be looking at this area for ponding.

A Notice of Determination of wetlands on the Kelzer Property was received November 2019 and it was determined that there are 10 wetlands on the site. The wetlands range in size from 158 sq. ft. to 21,953 sq. ft. A small creek also transverses the site from north to south. A Notice of Determination of wetlands for the access area on the Chaska Investment Property was received November 2020. This site contains a large wetland complex with various upland areas. Impacts to the wetlands are due to the new access road, Oak Creek Drive.

Land Use
The proposed Oak Creek consists of 102 single family lots with a typical lot size of 65 feet wide by 140 feet deep. Minimum setbacks are proposed to be consistent with those approved for Clover Preserve and Sagewood: front setback of 26 feet, side setback of 5 feet, corner lot side setback of 26 feet and rear yard setback of 20 feet.

The parcels of land that the Oak Creek project encompasses is currently zoned Open (O), which is a 'holding zone' until it develops. The area in question will be rezoned to a more appropriate zoning district, such as Planned Residential Development (PRD).

Layout
The neighborhood will be accessed from a new road, called Oak Creek Drive by the intersection of Clover Ridge Drive and Romeo Court. Clover Preserve Lane will be extended up to the creek and include 13 homesites. Sophia Drive will be constructed with a cul de sac and include 5 homesites. Trails will be constructed at the ends of both Clover Preserve and Sophia to provide pedestrian connectivity.

A private neighborhood park is planned for the site in a location that is west of the creek. Park amenities will include a play structure and seating.

There are a number of site conditions that were reviewed and considered in the layout of Oak Creek. These include:

- Site Access. As revised from the 2021 concept plan, access is being created from Clover Ridge Drive parallel with the rail line now known as Oak Creek Drive. Additionally, Sophia Drive will terminate in a cul de sac and provide access to 5 lots. Clover Preserve Lane will terminate into two cul de sacs and provide access to 13 lots.

- Existing Terrain and Creek. The site naturally drains to the creek located along the west side of the side and ultimately off-site to the south. It is this feature that influenced the design of separate north and south areas with ponding located throughout the site.

- View sheds. The topography of the site is such that the north portion sits higher than the south. This creates open sight lines to the south and west. The design takes advantage of this feature by providing a majority of the homes with desirable views. Those homes that face the north or east will benefit from the pond or wooded views.

- Tree Preservation. There is a large grove of trees located in the south area of the site. The site layout is sensitive to this feature and therefore accommodates preservation of trees. A more detailed analysis of tree preservation is provided in the tree preservation portion of this report.

- Utilities. Water & sewer is stubbed to each access point on the east. The site's layout is influenced by the extension of these utilities. A sanitary sewer lift station will be needed to serve this site. The final location of the lift station is oriented on the west side of the proposed tot lot.

- Railroad. The Twin City and Western Railroad has a set of tracks along the north boundary of the site. Additional buffer and setback for lots that back the railroad tracks will be provided. Due to the grade differential adjacent to the tracks, varying approaches to screening will include berming and landscaping.

- Farm Access. Currently, the land owner accesses the site for farming via a driveway over the railroad tracks. Upon development of the northerly portion of the site, farm access will be rerouted through the public road system to access the southerly & westerly retained parcels; shown as Outlots H & I on the proposed plat.

Transportation/ROW/Construction Traffic

The plan proposes to provide for a network of internal residential roadways with connectivity to arterial roadways. Specifically, Clover Preserve Lane is extended to the west to provide access to two cul de sacs that access 13 lots. In addition, a new development access is proposed from Clover Ridge Drive, parallel with the railroad, that will connect into the internal road system of Oak Creek now known as Oak Creek Drive.

The current plan appears to show road right-of-way widths (54 feet) that are consistent with the designs in the existing Clover Ridge and Sagewood developments, which is smaller than the City's typical 60 foot wide ROWs. City crews have evaluated this change in the 1st and 2nd additions of Sagewood and have determined that the 54 foot wide ROW is acceptable to carry through and provide more of a seamless approach to the existing neighborhoods.

A traffic study has been completed for this development. The traffic study found that Schoolmaster Drive currently operates near the maximum trips per day for a Local Street as classified in the City's Comprehensive Plan and by the Metropolitan Council. In response to access and traffic, Oak Creek is being proposed with one access, Oak Creek Drive. The new

access road connects to Clover Ridge Drive, which is classified as a collector road. The goal in creating the northerly connection is to encourage traffic to use the collector road system within the surrounding neighborhood and reduce the impact on the local streets.

Construction access will enter and exit from Pioneer Trail to the north. Construction traffic will be precluded from going south on Clover Ridge Drive per the developer's construction access plan. The developer will have to continue working with the existing neighbors on Sophia Drive and Clover Preserve Lane about how construction traffic will use these roadways for the homes proposed on these roadways.

Utilities
Sewer and water utilities are available. Water and sewer are stubbed to each access point on the east. The site's layout is influenced by the extension of these utilities. A sanitary sewer lift station will be needed to serve this site. The final location of the lift station is planned to be on the west edge of the tot lot.

Stormwater
Stormwater ponding is proposed as a part of this proposal on the south side of the site, center of the site just west of the creek, and north of the site. It will be required that the developer provides adequate maintenance access into these areas. Stormwater ponding will have to meet all Carver County WMO and City standards.

Phasing
The site is planned to be graded in its entirety beginning Spring 2022. The 1st phase will be the northeasterly portion of the site to construct Oak Creek Drive as well as the southeasterly portion to extend utilities from Clover Preserve Lane (Sagewood 2nd Addition). The 1st phase will consist of approximately 57 lots with the remaining 45 lots being constructed in the 2nd phase. Street and utility construction of the 1st phase will be Summer with home construction beginning Fall 2022. Dependent on market conditions, the 2nd phase of development is planned to occur in 2023.

Setbacks
The setbacks will be consistent with Sagewood 1st and 2nd. Namely, the front yard setback should be no less than 26 feet. The rear yard setback should be 20 feet. The side yard setback should be 5 feet. Corner lots should have a side yard setback of 26 feet.

In addition to these setbacks, there are other setbacks that may apply to this site. See below:

SETBACKS	
Direction	**Setback**
Wetlands	30 feet
Railway	50 feet

Architecture
DR Horton will be the sole builder in this development. The proposed homes will be 2-story single family designs, which are like those in the current Sagewood neighborhood. DR Horton anticipates offering approximately 7 floor plans ranging in size from 1,900 to 3,400 square feet.

Each floor plan will have multiple elevation options, which will create variety throughout. Pricing will also be similar to homes in Sagewood, starting in the lower to mid $500,000s. A sample of the home designs accompany this application.

City ordinance dictates that housing may not be similar within two houses to each side, directly across the street or diagonal from the house in question. This ordinance has been very successful in the recent past with the result of neighborhoods with varied housing design and architecture.

The following lots were subject to 360 degree architecture per the preliminary plat drawing of the full development dated March 25, 2022:

- Lots 1 & 6, Block 1
- Lots 7, 20, & 25, Block 2
- Lot 14, Block 3
- Lots 1, 4, 5, & 8, Block 4
- Lots 1 & 16, Block 5
- Lot 4, Block 9
- Lots 1 & 8, Block 10

Trails & Sidewalks

There are no public trails proposed as a part of this development nor are there trails called out for this area in the Comprehensive Plan. Because of this the developer will be required to pay trail fees, which will be wrapped into the Developer's Agreement. There will be a couple private trail sections included within the development; one that will connect the lots on Clover Preserve Lane to the lots to the west; and one trail that will connect the lots on Clover Preserve Lane to the Sophia Drive. The trail connection between Sophia Drive and Clover Preserve Lane is the developer's intent to meet the City's comment regarding providing a faster pedestrian connection for the westerly Oak Creek lots to access Clover Ridge Elementary. This option was explored as being the least impactful in terms of a crossing and preserving trees. Staff would still argue that the most direct and functional connection would be a bridge crossing between the Sophia Drive cul de sac and the westerly Oak Creek lots across the creek. The developer shall continue to explore this connection with staff and address at final submittal.

The plan is proposing to include sidewalks. The developer will be required to provide sidewalks on both sides of the streets up to the bulbs of cul de sacs per City policy. A sidewalk connection is proposed for the full length of the south side of Oak Creek Drive out to Clover Ridge Drive. The sidewalk will ultimately turn into the regional trail once it hits the apartment site. The north side of this street is not showing a sidewalk. If the bridge crossing between Sophia Drive and the westerly Oak Creek lots cannot be achieved as noted above, then the sidewalk on the north side of Oak Creek Drive will be required in order to meet policy.

Screening, Landscaping & Tree Preservation

Because this development abuts the Twin Cities and Western railway on its northern edge it will be important that the homes that back up to this use have adequate screening. Typically a mix of deciduous and coniferous trees with a level of berming is the best practice adjacent to railways. The applicant has shown in their plans that a mix of berming in some sections and

mainly coniferous trees will be installed along this edge. In addition they are incorporating a 6 foot privacy fence along the residential edge.



Trees will be required in the boulevard in order to meet the City's Boulevard Tree Policy. It should be noted that the boulevard is the area between the sidewalk and the street.

Tree Preservation is an important piece of this development, specifically in the southeast area where significant trees are present. The applicant has conducted a tree survey. As noted previously, there are 219 trees surveyed which are mainly oak trees ranging from 20-35 inches in caliper. 101 of the trees surveyed will be preserved, which totals 2,354 caliper inches; 118 removed, which totals 2,348 caliper inches. A more detailed review of trees was completed as part of the preliminary grading design. By eliminating a lot on Sophia, rerouting trails and adding retaining walls, 12 additional large trees (mostly Oaks) were able to be saved compared to the December 2021 concept plan. As with Sagewood 1st and 2nd additions, the tree preservation areas are proposed to be in an outlot containing a Conservation Easement and owned by the homeowners' association. There are other trees that sprinkle the yards of some of the lots that will also be preserved and incorporated into an easement area.

It should be noted that there is a cottonwood tree on the southwest tip of the subject site that has been deemed as one of the City's oldest cottonwood trees; it is pictured in the image on this page and is located just south outside the project limits. The developer has stated that this tree is not incorporated into the development and will remain preserved.

Private Amenity Area

A private neighborhood amenity area is planned for the site in a central location on the west side of the creek. Private amenities will include a play structure and seating.

Although this plan is proposing their own amenities, it will still be required of the developer to pay park dedication fees since the area proposed will be private.

Jonathan Association

During the reviews of Sagewood 1st and 2nd additions it was discussed whether or not Sagewood would be incorporated into the Jonathan Association, which is a Homeowners Association that encompasses the area over Clover Ridge. At that time the developer had the choice of either opting to be in the Association or create their own and provide their own private amenity area. The developer opted for their own private amenity area and the creation of their own Homeowners Association. As this new extension from the Sagewood development is mostly in the former orderly annexation area of Laketown Township, it is not required to be a part of the Jonathan Association by location. However, the developer has been in active discussions with Jonathan and are pursuing the Oak Creek development to be a part of the Jonathan Association. The developer and Association will have more information related to this

in the next month, or prior to final approvals. If the development does not become a part of the Jonathan Association then they will create their own HOA.

Annexation
The subject site was formerly located in the orderly annexation area of Laketown Township. This orderly annexation area was put in place in the 1980's to have zoning control over the areas that will be added to the City of Chaska in the future. The developer and City have completed the annexation process as of March 2022 and the area is now a part of the City of Chaska.

Development Costs (Infrastructure Improvements)
The City of Chaska has a number of area-wide development cost such as, but not limited to:

- Storm Sewer
- Trails
- Parks

Prior to final platting, the developer will need to work with City Staff to determine which of these are applicable and what those fees will be.

Preliminary Plat
The site will be platted into 102 lots for the development site. The following are the proposed outlots and their dispositions:

- Outlot A: farm access to be retained by the property owner (Kelzer's)
- Outlot B: wetland, ponding, and open space to be deeded to the City of Chaska
- Outlot C: tree preservation area to be owned by the HOA
- Outlot D: open space to be deeded to the City of Chaska
- Outlot E: open space to be owned by the HOA
- Outlot F: ponding area to be retained by the property owner (Chaska Investments)
- Outlot G: future development and wetland area to be retained by the property owner (Chaska Investments)
- Outlot H: farmland to be retained by the property owner (Kelzer's)
- Outlot I: farmland to be retained by the property owner (Kelzer's)
- Outlot J: farmland to be retained by the property owner (Kelzer's)
- Outlot K: farmland to be retained by the property owner (Kelzer's)
- Outlot L: farm access to be retained by the property owner (Kelzer's)
- Outlot M: tot lot to be owned by the HOA
- Outlot N: wetland, ponding, and open space to be deeded to the City of Chaska
- Outlot O: tree preservation area to be owned by the HOA

Rezoning
The site is being rezoned from Open (O) and Planned Multi-Use District (PMD-15) to Planned Residential District No. 85 (PRD-85).

Deadline for Agency Action
The City of Chaska received the complete application for this request on March 1, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Saturday, April 30, 2022 (60 days)**, unless the City provides the petitioner with written reasons for an additional 60-day review period. The additional review period would extend to Wednesday, June 29,

2022. The City may with the petitioner's consent extend the review period beyond the Wednesday, June 29, 2022 date. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

PLANNING COMMISSION ACTION TAKEN 04/13/2022:

Motion to recommend to City Council approval of the Preliminary Plat for a 102 lot development on 52 acres of land, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Narrative (pgs 1-4), prepared by DR Horton, dated March 25, 2022
    b. Cover, prepared by Westwood, dated March 25, 2022
    c. Existing Conditions, prepared by Westwood, dated March 25, 2022
    d. Preliminary Plat – Overall, prepared by Westwood, dated March 25, 2022
    e. Preliminary Plat (pgs 4-6), prepared by Westwood, dated March 25, 2022
    f. Preliminary Grading Plan – Overall, prepared by Westwood, dated March 25, 2022
    g. Preliminary Grading, Drainage & Erosion Control (pgs 8-11), prepared by Westwood, dated March 25, 2022
    h. Preliminary Utility Plan – North, prepared by Westwood, dated March 25, 2022
    i. Preliminary Utility Plan – South, prepared by Westwood, dated March 25, 2022
    j. Street Profiles, prepared by Westwood, dated March 25, 2022
    k. Details (pgs 15-17), prepared by Westwood, dated March 25, 2022
    l. Overall Preliminary Landscape Plan, prepared by Westwood, dated March 25, 2022
    m. Preliminary Landscape Plan (pgs 19-21), prepared by Westwood, dated March 25, 2022
    n. Preliminary Landscape Plan, Notes & Details, prepared by Westwood, dated March 25, 2022
    o. Overall Tree Preservation Plan, prepared by Westwood, dated March 25, 2022
    p. Tree Preservation Plan (pgs 24-26), prepared by Westwood, dated March 25, 2022
    q. Tree Preservation Plan & Data, prepared by Westwood, dated March 25, 2022
    r. Illustrative Cross Sections, prepared by Westwood, dated March 14, 2022
2. Adherence with the City Engineer's Memo dated April 13, 2022.
3. Adherence to the City's Boulevard Tree Policy and local street section design.
4. Provision that boulevard trees are placed between the sidewalk and street.
5. Provision that boulevard trees are placed throughout the entire boulevard, including corner lot areas, to meet the Tree Policy.
6. Provision to preserve 'Heritage Tree' on the southwest corner of the Oak Creek site.
7. Provision of sidewalks on both sides of all local streets.
8. Adherence to the following building setbacks for Oak Creek:
    a. Front (house): 26 feet
    b. Front (unenclosed porch): 20 feet
    c. Rear: 20 feet
    d. Side: 5 feet
    e. Side (corner): 26 feet
9. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs, including parkland fees.
10. Compliance with the City's anti-monotony and design requirements zoning ordinance (Section 15.28.290) for Oak Creek.
11. Provision to be setback 30 feet from edge of wetlands.
12. Provision of developer responsibility to remove any hazardous trees or limbs on site as determined by the Public Works Director, prior to issuance of a building permit.
13. Provision of a conservation easement in favor of the HOA be completed for all preserved trees, and to be supplied at final submittal.

14. Provision of a storm water management plan meeting City and Carver County WMO standards.
15. Provision to continue to explore a pedestrian connection/opening across the creek and through Sophia Drive's cul de sac, and to be addressed at final submittal.
16. If the pedestrian connection/opening across the creek is not achieved between the Sophia Drive cul de sac and the westerly Oak Creek lots then a sidewalk will be required on the north side of Oak Creek Drive up to Clover Ridge Drive, and to be addressed on the final plans.
17. Provision that section 15.28 Special Regulations are complied with.
18. The following lots were subject to 360 degree architecture per the preliminary plat drawing of the full development dated March 25, 2022:
    a. Lots 1 & 6, Block 1
    b. Lots 7, 20, & 25, Block 2
    c. Lot 14, Block 3
    d. Lots 1, 4, 5, & 8, Block 4
    e. Lots 1 & 16, Block 5
    f. Lot 4, Block 9
    g. Lots 1 & 8, Block 10
19. Provision of a 30 feet drainage and utility easement on the north and west sides of Outlot H, and to be shown on the final plans.
20. Provision to further explore tree preservation on the site with City staff and to be addressed at final submittal.

Recommend approval of the rezoning from Open (O) and Planned Multi-Use District (PMD-15) to Planned Residential District No. 85 (PRD-85).

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-42 approving the Preliminary Plat for Oak Creek (PC #2022-20).

Motion to adopt Ordinance No. 1015 approving the rezoning from Open (O) and Planned Multi-Use District (PMD-15) to Planned Residential District No. 85 (PRD-85).

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-42

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Preliminary Plat for Oak Creek/DR Horton /PC #2022-20

WHEREAS, the 102-lot Oak Creek proposal on approximately 52-acres of property is located north of Engler Boulevard/County Road 10 and west of Clover Preserve Drive and Sophia Drive; and

WHEREAS, the proposed Oak Creek consists of 102 single family lots with a typical lot size of 65 feet wide by 140 feet deep; and

WHEREAS, the current plan appears to show road right-of-way widths (54 feet) that are consistent with the designs in the existing Clover Ridge and Sagewood developments, which is smaller than the City's typical 60 foot wide ROWs; and

WHEREAS, a traffic study has been completed for this development; and

WHEREAS, in response to access and traffic, Oak Creek is being proposed with one access, Oak Creek Drive; and

WHEREAS, construction access will enter and exit from Pioneer Trail to the north, and construction traffic will be precluded from going south on Clover Ridge Drive per the developer's construction access plan; and

WHEREAS, there are no trails proposed as a part of this development nor are there trails called out for this area in the Comprehensive Plan, and because of this the developer will be required to pay trail fees, which will be wrapped into the Developer's Agreement; and

WHEREAS, there will be a couple private trail sections included within the development; one that will connect the lots on Clover Preserve Lane to the lots to the west; and one trail that will connect the lots on Clover Preserve Lane to the Sophia Drive; and

WHEREAS, the trail connection between Sophia Drive and Clover Preserve Lane is the developer's intent to meet the City's comment regarding providing a faster pedestrian connection for the westerly Oak Creek lots to access Clover Ridge Elementary; and

WHEREAS, this option was explored as being the least impactful in terms of a crossing and preserving trees; and

WHEREAS, staff would still argue that the most direct and functional connection would be a bridge crossing between the Sophia Drive cul de sac and the westerly Oak Creek lots across the creek; and

WHEREAS, the developer shall continue to explore this connection with staff and address at final submittal; and

WHEREAS, a sidewalk connection is proposed for the full length of the south side of Oak Creek Drive out to Clover Ridge Drive; and

WHEREAS, the north side of this street is not showing a sidewalk; and

WHEREAS, if the bridge crossing between Sophia Drive and the westerly Oak Creek lots cannot be achieved as noted above, then the sidewalk on the north side of Oak Creek Drive will be required in order to meet policy; and

WHEREAS, because this development abuts the Twin Cities and Western railway on its northern edge it will be important that the homes that back up to this use have adequate screening; and

WHEREAS, the applicant has shown in their plans that a mix of berming in some sections and mainly coniferous trees will be installed along this edge; and

WHEREAS, in addition they are incorporating a 6 foot privacy fence along the residential edge; and

WHEREAS, there are 219 trees surveyed which are mainly oak trees ranging from 20-35 inches in caliper; and

WHEREAS, 101 of the trees surveyed will be preserved, which totals 2,354 caliper inches; 118 removed, which totals 2,348 caliper inches; and

WHEREAS, although this plan is proposing their own amenities, it will still be required of the developer to pay park dedication fees since the area proposed will be private; and

WHEREAS, the developer and City have completed the annexation process as of March 2022 and the area is now a part of the City of Chaska; and

WHEREAS, the site will be platted into 102 lots for the development site, and the following are the proposed outlots and their dispositions:

- Outlot A: farm access to be retained by the property owner (Kelzer's)
- Outlot B: wetland, ponding, and open space to be deeded to the City of Chaska
- Outlot C: tree preservation area to be owned by the HOA
- Outlot D: open space to be deeded to the City of Chaska
- Outlot E: open space to be owned by the HOA
- Outlot F: ponding area to be retained by the property owner (Chaska Investments)
- Outlot G: future development and wetland area to be retained by the property owner (Chaska Investments)
- Outlot H: farmland to be retained by the property owner (Kelzer's)
- Outlot I: farmland to be retained by the property owner (Kelzer's)
- Outlot J: farmland to be retained by the property owner (Kelzer's)
- Outlot K: farmland to be retained by the property owner (Kelzer's)
- Outlot L: farm access to be retained by the property owner (Kelzer's)
- Outlot M: tot lot to be owned by the HOA
- Outlot N: wetland, ponding, and open space to be deeded to the City of Chaska
- Outlot O: tree preservation area to be owned by the HOA; and

WHEREAS, on April 13, 2022 the Planning Commission recommended approval to the City Council of the Preliminary Plat for Oak Creek (PC#2022-20); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Preliminary Plat for Oak Creek (PC#2022-20), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Narrative (pgs 1-4), prepared by DR Horton, dated March 25, 2022
    b. Cover, prepared by Westwood, dated March 25, 2022
    c. Existing Conditions, prepared by Westwood, dated March 25, 2022
    d. Preliminary Plat – Overall, prepared by Westwood, dated March 25, 2022
    e. Preliminary Plat (pgs 4-6), prepared by Westwood, dated March 25, 2022
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    i. Preliminary Utility Plan – South, prepared by Westwood, dated March 25, 2022
    j. Street Profiles, prepared by Westwood, dated March 25, 2022
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    q. Tree Preservation Plan & Data, prepared by Westwood, dated March 25, 2022
    r. Illustrative Cross Sections, prepared by Westwood, dated March 14, 2022
2. Adherence with the City Engineer's Memo dated April 13, 2022.
3. Adherence to the City's Boulevard Tree Policy and local street section design.
4. Provision that boulevard trees are placed between the sidewalk and street.
5. Provision that boulevard trees are placed throughout the entire boulevard, including corner lot areas, to meet the Tree Policy.
6. Provision to preserve 'Heritage Tree' on the southwest corner of the Oak Creek site.
7. Provision of sidewalks on both sides of all local streets.
8. Adherence to the following building setbacks for Oak Creek:
    a. Front (house): 26 feet
    b. Front (unenclosed porch): 20 feet
    c. Rear: 20 feet
    d. Side: 5 feet
    e. Side (corner): 26 feet
9. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs, including parkland fees.
10. Compliance with the City's anti-monotony and design requirements zoning ordinance (Section 15.28.290) for Oak Creek.
11. Provision to be setback 30 feet from edge of wetlands.
12. Provision of developer responsibility to remove any hazardous trees or limbs on site as determined by the Public Works Director, prior to issuance of a building permit.
13. Provision of a conservation easement in favor of the HOA be completed for all preserved trees, and to be supplied at final submittal.
14. Provision of a storm water management plan meeting City and Carver County WMO standards.
15. Provision to continue to explore a pedestrian connection/opening across the creek and through Sophia Drive's cul de sac, and to be addressed at final submittal.
16. If the pedestrian connection/opening across the creek is not achieved between the Sophia Drive cul de sac and the westerly Oak Creek lots then a sidewalk will be required on the north side of Oak Creek Drive up to Clover Ridge Drive, and to be addressed on the final plans.
17. Provision that section 15.28 Special Regulations are complied with.
18. The following lots were subject to 360 degree architecture per the preliminary plat

drawing of the full development dated March 25, 2022:

a. Lots 1 & 6, Block 1
b. Lots 7, 20, & 25, Block 2
c. Lot 14, Block 3
d. Lots 1, 4, 5, & 8, Block 4
e. Lots 1 & 16, Block 5
f. Lot 4, Block 9
g. Lots 1 & 8, Block 10

19. Provision of a 30 feet drainage and utility easement on the north and west sides of Outlot H, and to be shown on the final plans.
20. Provision to further explore tree preservation on the site with City staff and to be addressed at final submittal.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

ORDINANCE NO. 1015

AN ORDINANCE AMENDING ORDINANCE NO. 229 (ZONING ORDINANCE) OF THE CITY OF CHASKA BY REZONING CERTAIN REAL ESTATE WITHIN THE CITY OF CHASKA FROM THE OPEN (O) AND PLANNED MULTI-USE DISTRICT (PMD-15) ZONING DISTRICTS TO PLANNED RESIDENTIAL DEVELOPMENT DISTRICT NO. 85 (PRD-85) AND BY ESTABLISHING PERMITTED USES AND REGULATIONS FOR PRD-85 (OAK CREEK)

THE CITY COUNCIL OF THE CITY OF CHASKA DO ORDAIN:

Section I. **Rezoning.** The boundaries of the Zoning Districts as established by Ordinance No. 229 and as shown on the Zoning Map of Chaska, Minnesota are hereby amended as follows:

The following described real estate situated in the City of Chaska is hereby removed from the Open (O) and Planned Multi-Use District (PMD-15) and rezoned to Planned Residential Development District No. 85 (PRD-85) for all of Blocks 1-10 of Oak Creek.

The following graphic exhibits shall serve as the general guide for development of the Oak Creek area:

1. Cover, prepared by Westwood, dated March 25, 2022
2. Existing Conditions, prepared by Westwood, dated March 25, 2022
3. Preliminary Plat – Overall, prepared by Westwood, dated March 25, 2022
4. Preliminary Plat (pgs 4-6), prepared by Westwood, dated March 25, 2022
5. Preliminary Grading Plan – Overall, prepared by Westwood, dated March 25, 2022
6. Preliminary Grading, Drainage & Erosion Control (pgs 8-11), prepared by Westwood, dated March 25, 2022
7. Preliminary Utility Plan – North, prepared by Westwood, dated March 25, 2022
8. Preliminary Utility Plan – South, prepared by Westwood, dated March 25, 2022
9. Street Profiles, prepared by Westwood, dated March 25, 2022
10. Details (pgs 15-17), prepared by Westwood, dated March 25, 2022
11. Overall Preliminary Landscape Plan, prepared by Westwood, dated March 25, 2022
12. Preliminary Landscape Plan (pgs 19-21), prepared by Westwood, dated March 25, 2022
13. Preliminary Landscape Plan, Notes & Details, prepared by Westwood, dated March 25, 2022
14. Overall Tree Preservation Plan, prepared by Westwood, dated March 25, 2022
15. Tree Preservation Plan (pgs 24-26), prepared by Westwood, dated March 25, 2022
16. Tree Preservation Plan & Data, prepared by Westwood, dated March 25, 2022

17. Illustrative Cross Sections, prepared by Westwood, dated March 14, 2022

Section II. **PRD-85 District regulations.** Permitted uses and regulations applicable to the PRD-85 District is hereby amended to read as follows:

A. Intent

The intent of PRD-85 is to create a Low-Density Residential neighborhood that preserves the natural amenities unique to this site.

B. Detached Single Family

The following described real estate shall be limited in its use to Detached Single Family all of Blocks 110 of the recorded plat of Oak Creek, Carver County, Minnesota.

1. Permitted Uses shall be those as found in the R1-Low Density Residence, zoning ordinance Section 15.15.050, Special uses shall be those as found in the zoning ordinance Section 15.15.050C, and Accessory uses shall be as found in the zoning ordinance Section 15.15.050D.
2. The principal building setbacks for Oak Creek shall be:
    a. Front, house: 26 feet
    b. Front, unenclosed porch: 20 feet
    c. Rear: 20 feet
    d. Side: 5 feet
    e. Side, corner: 26 feet
    f. From Railroad Right-of-Way (ROW): 50 feet
3. The accessory structure setbacks for the development shall be:
    a. Front: 26 feet
    b. Rear: 5 feet
    c. Side, corner: 26 feet
    d. Side, interior: 5 feet
    e. In addition, no swimming pools or other recreational courts or appurtenant equipment shall be located in a front or side yard. Setbacks shall be measured from the impervious surfaces of such uses.
4. Preservation of trees as denoted in the Tree Preservation Plan.
5. 360-degree architecture shall be provided for all corner lots and all lots whose rear or sides are visible from public right's-of-way or across from open spaces, and are as follows per the March 25, 2022 preliminary plat:
    a. Lots 1 & 6, Block 1
    b. Lots 7, 20, & 25, Block 2
    c. Lot 14, Block 3
    d. Lots 1, 4, 5, & 8, Block 4
    e. Lots 1 & 16, Block 5
    f. Lot 4, Block 9
    g. Lots 1 & 8, Block 10
6. 4" window wrap on all elevations and the utilization of fiber cement siding on the front elevations shall be required for each home.
7. Maximum height shall be 35 feet for principal structures.

C. <u>Outlots</u>

The following described real estate shall be limited in its use to the following:

- Outlot A: farm access to be retained by the property owner (Kelzer's)
- Outlot B: wetland, ponding, and open space to be deeded to the City of Chaska
- Outlot C: tree preservation area to be owned by the HOA
- Outlot D: open space to be deeded to the City of Chaska
- Outlot E: open space to be owned by the HOA
- Outlot F: ponding area to be retained by the property owner (Chaska Investments)
- Outlot G: future development and wetland area to be retained by the property owner (Chaska Investments)
- Outlot H: farmland to be retained by the property owner (Kelzer's)
- Outlot I: farmland to be retained by the property owner (Kelzer's)
- Outlot J: farmland to be retained by the property owner (Kelzer's)
- Outlot K: farmland to be retained by the property owner (Kelzer's)
- Outlot L: farm access to be retained by the property owner (Kelzer's)
- Outlot M: tot lot to be owned by the HOA
- Outlot N: wetland, ponding, and open space to be deeded to the City of Chaska
- Outlot O: tree preservation area to be owned by the HOA

all in the plat of Oak Creek, Carver County, Minnesota.

<u>Section III</u>. <u>Effective Date.</u> This Ordinance shall be in full force and effect from and after its date of passage, adoption, and publication according to law.

Passed and adopted by the City Council of the City of Chaska, Minnesota this 18th day of April, 2022.

_____
Windschitl, Mayor

Attest:_____
Deputy Clerk

City of Chaska
Memorandum

To: Planning Commission
From: Matt Clark, City Engineer
Date: April 13th, 2022
Subject: Oak Creek Development – Preliminary Plat

The Oak Creek addition dates back to the City development approvals that were considered with the Clover Ridge residential development. The planned development for the site proposes new residential development. Sanitary sewer and water main connections are proposed via Clover Preserve Lane and Clover Ridge Drive. Mass grading is planned over the entire site that requires a storm water management plan and grading plan that meet both the City and watershed requirements prior to grading occurring. The utility plans will need to be coordinated with staff.

The overarching traffic study that was completed to analyze the impacts concluded the development has appropriate access to the surrounding road network with no concern of operations at any of the surrounding intersections. While traffic will increase with development, no improvements are recommended due to the surrounding roadways having sufficient capacity.

The developer will need to coordinate with the neighbors as to the timing of grading. A construction traffic plan will be needed to minimize impacts to the neighboring streets and directing construction traffic to utilize Clover Ridge Drive via Pioneer Trail.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300

OAK CREEK

Concept Plan Narrative
3/25/2022
Chaska, MN

EXISTING CONDITIONS

Oak Creek is located to the west of the Sagewood and Clover Preserve neighborhoods and south of the Twin Cities & Western Railroad line. The site, currently used for agricultural purposes, is in Laketown Township and in the process of being annexed into the City of Chaska.

The site received concept plan approval in May 2020 with the condition that access be further reviewed. In December 2021, concept plan approval was granted on a revised plan that provided direct access to Clover Ridge Drive parallel with the rail line.

The southerly portion of the Kelzer Property contains an area of trees. A tree survey indicates approximately 219 trees of varying sizes and species that are generally located along the easterly border of the site. The majority is Oak. The remaining species include a combination of Cedar, Basswood, Ash and Elm among a few others. There are clusters of trees that will be preserved and identified on the tree preservation plan.

A Notice of Determination of wetlands on the Kelzer Property was received November 2019 and it was determined that there are 10 wetlands on the site. The wetlands range in size from 158 sq. ft. to 21,953 sq. ft. A small creek also transverses the site from north to south.

A Notice of Determination of wetlands for the access area on the Chaska Investment Property was received November 2020. This site contains a large wetland complex with various upland areas. Impacts to the wetlands are due to the new access road, Oak Creek Drive.

A traffic study was completed for the site in late 2021. The study reviewed how the proposed Oak Creek development would affect existing traffic conditions. It was determined that the existing roadway network to the north and east of the site could support the future traffic volumes of Oak Creek. The traffic study also showed that the existing local streets to the south are currently reaching the maximum traffic volumes shown in the City of Chaska's Comprehensive Plan.

THE NEIGHBORHOOD

The proposed Oak Creek consists of 102 single family lots with a typical lot size of 65 feet wide by 140 feet deep. Minimum setbacks are proposed to be consistent with those approved for Clover Preserve and Sagewood: front setback of 26 feet, side setback of 5 feet, corner lot side setback of 26 feet and rear yard setback of 20 feet.

The neighborhood will be accessed from a new road, called Oak Creek Drive by the intersection of Clover Ridge Drive and Romeo Court. Clover Preserve Lane will be extended up to the creek and include 13 homesites. Sophia Drive will be constructed with a cul de sac and include 5 homesites. Trails will be constructed at the ends of both Clover Preserve and Sophia to provide pedestrian connectivity.

A private neighborhood park will be located west of Clover Preserve Lane. Park amenities will include a play structure and seating.

The proposed homes will be 2-story single family designs, which are like those in the current Sagewood neighborhood. DR Horton anticipates offering approximately 7 floor plans ranging in size from 1,900 to 3,400 square feet. Each floor plan will have multiple elevation options, which will create variety throughout. Pricing is anticipated to start in the mid to upper $500,000s. A sample of the home designs accompany this application.

CONSTRUCTION & PHASING

Construction access will be mainly from the new road – the intersection of Oak Creek Drive & Clover Ridge Drive. However, access from both Sophia & Clover Preserve will be necessary to complete development of the lots and construction of homes on those streets.

The site is planned to be graded in its entirety beginning Spring 2022. The 1st phase will be the northeasterly portion of the site to construct Oak Creek Drive as well as the southeasterly portion to extend utilities from Clover Preserve Lane (Sagewood 2nd Add). The 1st phase will consist of approximately 57 lots with the remaining 45 lots being constructed in the 2nd phase. Street and utility construction of the 1st phase will be Summer with home construction beginning Fall 2022.

Dependent on market conditions, the 2nd phase of development is planned to occur in 2023.

CONCEPT PLAN DISCUSSION

The below were items of discussion or concern at the time of Concept Plan approval.

1. Access and Traffic. There were concerns that even with the north access, the extension of Clover Preserve Lane will significantly increase traffic on the local streets. It was desired that Clover Preserve Lane not be extended through the new neighborhood.

   Additionally, there were concerns with current traffic on the local neighborhood streets which was expected to worsen with more homes. A traffic study found that Schoolmaster Drive currently operates near the maximum trips per day for a Local Street as classified in the City's Comprehensive Plan and by the Metropolitan Council.
   In response to access and traffic, Oak Creek is being proposed with one access, Oak Creek Drive. The new access road connects to Clover Ridge Drive, which is classified as a collector road. The goal in creating the northerly connection is to encourage traffic to use the collector road system within the surrounding neighborhood and reduce the impact on the local streets.

   As a result of one connection, a cul de sac is proposed at the end of Sophia Drive. Clover Preserve Lane would be extended up to the creek and create 13 homesites off two cul de sacs. Utilities will be extended west into Oak Creek from Sagewood.

2. Tree Preservation. The tree preservation review that was completed at the concept plan stage contemplated approximately 48% of the healthy significant trees being saved. A more detailed review of trees was completed as part of the preliminary grading design. By eliminating a lot on Sophia, rerouting trails and adding retaining walls, 12 additional large trees (mostly Oaks) were able to be saved. As with Sagewood, the tree preservation areas are proposed to be in an outlot containing a Conservation Easement and owned by the homeowners' association.

3. Homeowners' Association. A homeowners' association (HOA) will be required for Oak Creek due to the private park, tree preservation and trails. Options are being reviewed on whether this is with The Jonathan Association or the creation of a separate HOA. We are currently in active conversations with Jonathan and expect a final decision will be made over the next month.

SSTS
S² TRAFFIC SOLUTIONS

February 13, 2022

To: **Michael Suel, DR Horton**

From: **Vernon Swing, PE**

Re: **Traffic Analysis Memorandum Addendum – Oak Creek Single Family with Revised Access, Chaska, MN**

Per your request, S^2 Traffic Solutions, LLC has conducted additional traffic analysis for the proposed Oak Creek single family homes development in the City of Chaska, MN. This study considered the impact of the Oak Creek single family homes, assuming the inclusion of the Clover Field and Clover Ridge apartment projects in the background, with access to Oak Creek limited to the extension of Romeo Ct to the west from the intersection with Clover Ridge Rd. This analysis does not include the previous circulation road that connected to Clover Preserve Dr via Clover Preserve Ln. That said, the site plan still includes 6 homes along the cul-du-sac on Sofia Dr and 12 homes along the Cul-du-sac on Clover Preserve Ln. The Oak Creek development will include 104 single family homes. **Figure 1**, Vicinity Map, and **Figure 2** is the revisednConcept Site Plan for the proposed development.

This memorandum updates the 2025 Build conditions at the study area intersections listed below, and provides a comparison between the trip assignment, **Figure 5**, 2025 Build conditions, **Figure 9**, and traffic operations **Table 3** from the original study:

- Pioneer Trail and Clover Ridge Dr
- Clover Ridge Dr and Romeo Ct
- Clover Ridge Dr and Clover Preserve Dr
- Clover Ridge Dr and Hundertmark Rd W
- Clover Ridge Dr and Clover Field Dr
- Clover Ridge Dr and Schoolmaster Dr
- Clover Preserve Dr and Hundertmark Rd W
- Clover Preserve Dr and Clover Field Dr
- Clover Preserve Dr and Schoolmaster Dr
- Clover Preserve Dr and Clover Preserve Ln
- Clover Preserve Dr and Sophia Dr
- Clover Ridge Apartment access and Clover Ridge Dr
- Clover Field Apartment access and Clover Ridge Dr

Future Conditions

Again, the 2025 conditions reflect a three percent annual increase in background traffic and include traffic forecasts for the Clover Field and Clover Ridge apartment projects.

Trip Generation and Distribution

The volume of vehicle trips generated by the Oak Creek single family home development and the two apartment developments has been estimated for the weekday AM and PM peak hours and on daily basis using the data and methodology described in the ***Trip Generation Manual***[1]. Table 1 summarizes the trip generation estimates.

Table 1 - Trip Generation

Land Use	Type	Block No.	Land Use Code	Size	Trips Generated:				
					AM peak		PM Peak		Weekday
					Enter	Exit	Enter	Exit	ADT
Single Family Housing	Residential	1	210	104 units	19	54	62	36	981
Mid-Rise Apartment/Suburban	Residential	2	221	162 units	14	44	43	28	881
Mid-Rise Apartment/Suburban	Residential	2	221	119 units	10	33	32	20	647
Totals - Gross					43	131	137	84	2,509
					174		221		

* Per ITE's Trip Generation Manual, 11th Edition.

As shown in Table 1, the Oak Creek single family homes development will generate 73 new trips (19 entering and 54 exiting) during the morning traffic peak hour, 98 new trips (62 entering and 36 exiting) during the evening traffic peak hour and 981 daily trips. (The apartment projects trip generation remains the same as reported in the traffic memorandum dated January 25, 2022.)

The new trips for the Oak Creek single family development have been reassigned to the surrounding roadways assuming 86 homes will access the regional roads via the Romeo Ct extension, 6 homes will use Sophia Dr, and 12 homes will use Clover Preserve Ln. In general, the new access scenario changes the distribution with approximately 78 percent of the traffic utilizing Pioneer Trail, 18 percent utilizing Hundertmark Rd W, and 4 percent utilizing Clover Field Dr to access the regional roadway network. **Figure 5 and 5a** illustrates the original trip assignment and the updated trip assignment, respectively. **Figures 9 and 9a** illustrate the original and reassigned Build traffic conditions, respectively.

Traffic Operations

The traffic operations were review reflecting the new traffic distribution. Again, the industry standard Synchro/SimTraffic software package (11th Edition) was used to analyze 2025 Build conditions for both the AM and PM peak hours. It is noted, the reported results are from the aggregate of 10 SimTraffic simulations which use a random number generator to seed the network with vehicles. These results reflect dynamic conditions and are more accurate than the results of the static analysis reported by Synchro. Due to the random number generator results can sometimes show slightly better operations on minor movements under higher traffic conditions when the intersections are operating well. This can be seen when delays and queues noted in the Build Scenario are slightly less than the No-Build Scenario.

Tables 3a, attached, summarizes the results of the original 2025 AM and PM Build analyses and the 2025 AM and PM Build analysis with the Updated Access. The results shown in the indicate the overall level of service at all the studied intersection will still be LOS A, with individual movements at LOS B or better for either access scenarios.

[1] Trip Generation Manual, Institute of Transportation Engineers (ITE), 11th Edition

Conclusion
In conclusion, the proposed Oak Creek single family residential with a single primary access to the regional roadway network will operate well. The traffic operational analysis indicates there is available capacity on the roadways surrounding the site to accommodate site-generated traffic.

Please contact Vernon Swing at vswingtraffic@gmail.com with any questions.

Attachments: Table 3a; Figures 1, 2, 6, 6a, 9, and 9a.
(Appendices with Traffic Counts, Trip Generation Data, Synchro/Simtraffic Worksheets are available upon request.)

Table 3a

LOS (Delay in sec) plus Vehicle Queuing in Feet
(Lower case letter designates Unsignalized intersection; italics designates Roundabout)

Intersection No.	Both Build AM	BB AM Q	Both Build PM	BB PM Q	Updated Access =>	Both Build AM	BB AM Q	Both Build PM	BB PM Q
5	a (2.8)		a (2.0)			a (3.2)		a (2.1)	
Worst Movement	sbt a (7.3)	NB 52	sbt b (10.4)	NB 45		sbt a (7.8)	NB 58	sbt b (11.1)	NB 44
10	a (1.3)		a (0.9)			a (2.0)		a (1.3)	
Worst Movement	wbl a (7.5)	EB 44	wbl a (6.0)	EB 36		ebl a (5.1)	EB 45	ebl a (5.1)	EB 46
15	*a (2.9)*		*a (2.7)*			*a (3.0)*		*a (2.6)*	
Worst Movement	*sbt a (3.2)*	*NB 10*	*nbr a (3.8)*	*SB 10*		*ebt a (3.6)*	*EB 10*	*sbt a (3.2)*	*NB 14*
20	*a (3.2)*		*a (3.1)*			*a (3.1)*		*a (3.0)*	
Worst Movement	*nbt a (4.5)*	*NB 34*	*nbl a (3.7)*	*EB 23*		*nbt a (3.8)*	*NB 42*	*wbt a (3.8)*	*EB 25*
25	a (1.0)		a (1.4)			a (1.2)		a (0.9)	
Worst Movement	ebl a (6.5)	EB 48	wbl a (6.7)	EB 43		ebl a (6.6)	EB 47	ebl a (4.3)	EB 28
30	a (1.8)		a (1.8)			a (1.9)		a (1.6)	
Worst Movement	ebt a (6.7)	WB 52	ebt a (7.0)	WB 43		ebt a (7.7)	WB 44	wbt a (6.9)	WB 42
35	a (1.3)		a (2.5)			a (1.4)		a (2.1)	
Worst Movement	wbl a (4.3)	WB 44	wbl a (4.7)	WB 58		wbl a (4.3)	WB 45	wbt a (4.3)	WB 49
40	a (2.9)		a (3.3)			a (2.7)		a (2.5)	
Worst Movement	sbt a (5.7)	SB 46	sbt a (5.6)	SB 48		sbt a (5.8)	SB 46	sbt a (5.0)	SB 43
45	a (2.6)		a (3.0)			a (1.7)		a (2.8)	
Worst Movement	sbl a (5.6)	SB 34	sbl a (5.9)	SB 41		sbl a (5.9)	SB 25	sbl a (5.1)	SB 39
50	a (2.2)		a (1.7)			a (1.7)		a (1.4)	
Worst Movement	sbl a (4.4)	EB 48	ebl a (4.7)	EB 50		ebl a (5.7)	EB 45	ebl a (4.5)	EB 46
55	a (1.9)		a (1.1)			a (1.7)		a (1.5)	
Worst Movement	ebl a (4.6)	EB 43	ebl a (4.2)	EB 34		ebl a (4.4)	EB 44	ebl a (4.5)	EB 34
60	a (0.9)		a (0.7)			a (1.0)		a (0.5)	
Worst Movement	ebl a (5.2)	EB 46	ebl a (5.2)	EB 38		ebl a (4.9)	EB 50	ebl a (4.7)	EB 34
65	a (1.0)		a (0.9)			a (1.0)		a (0.8)	
Worst Movement	ebl a (4.2)	EB 45	ebl a (5.0)	EB 42		ebl a (4.3)	EB 43	ebl a (5.0)	EB 34

Intersections:

5	Pioneer Trail and Clover Ridge Dr
10	Clover Ridge Dr and Romeo Ct
15	Clover Ridge Dr and Clover Preserve Dr
20	Clover Ridge Dr and Hundertmark Rd W
25	Clover Ridge Dr and Clover Field Dr
30	Clover Ridge Dr and Schoolmaster Dr
35	Clover Preserve Dr and Hundertmark Rd W
40	Clover Preserve Dr and Clover Field Dr
45	Clover Preserve Dr and Schoolmaster Dr
50	Clover Preserve Dr and Clover Preserve Ln
55	Clover Preserve Dr and Sophia Dr
60	Clover Ridge Apartment access and Clover Ridge Dr
65	Clover Field Apartment access and Clover Ridge Dr



Figure 1 - Vicinity Map

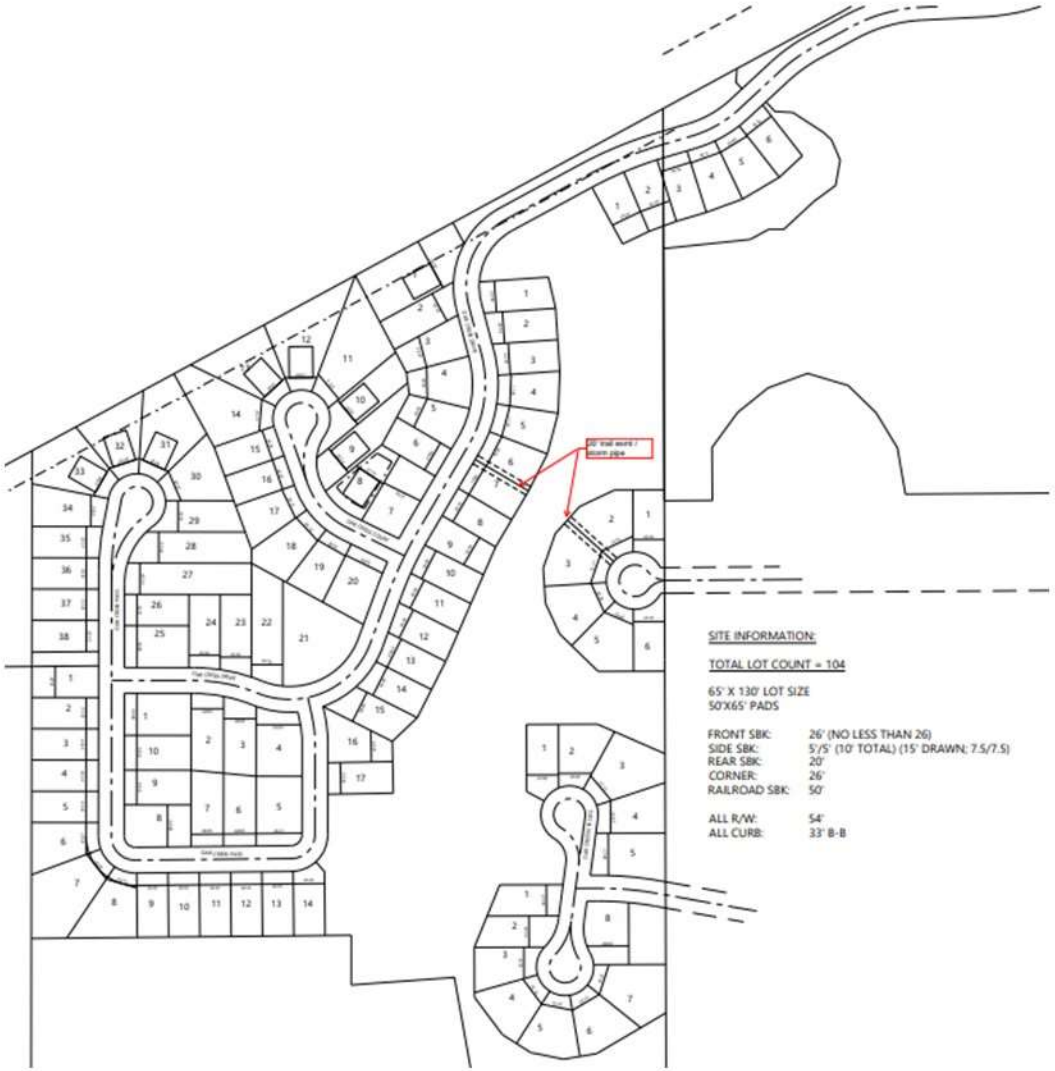


Figure 2 - Oak Creek Residential Site Plan (By Others)

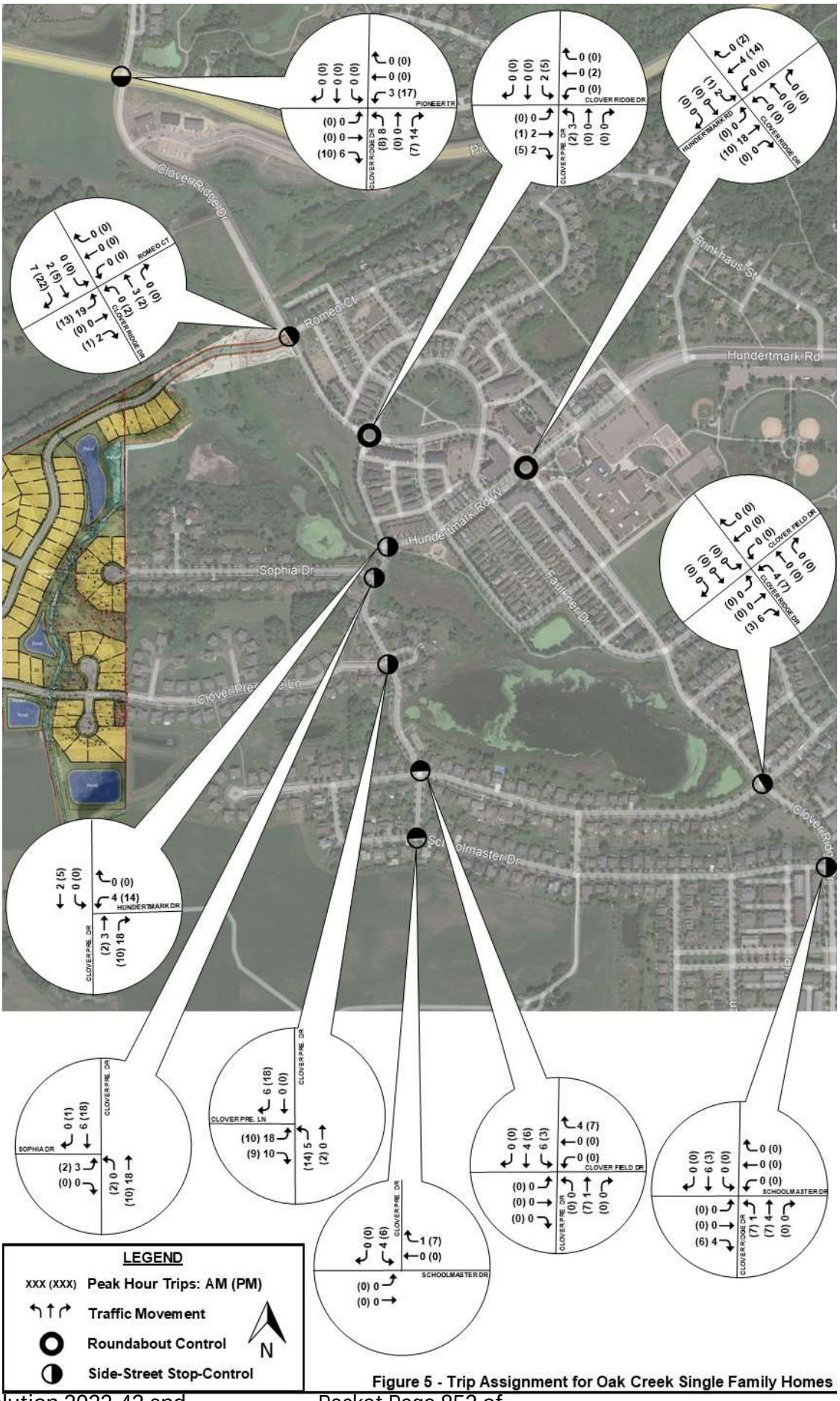


Figure 5 - Trip Assignment for Oak Creek Single Family Homes

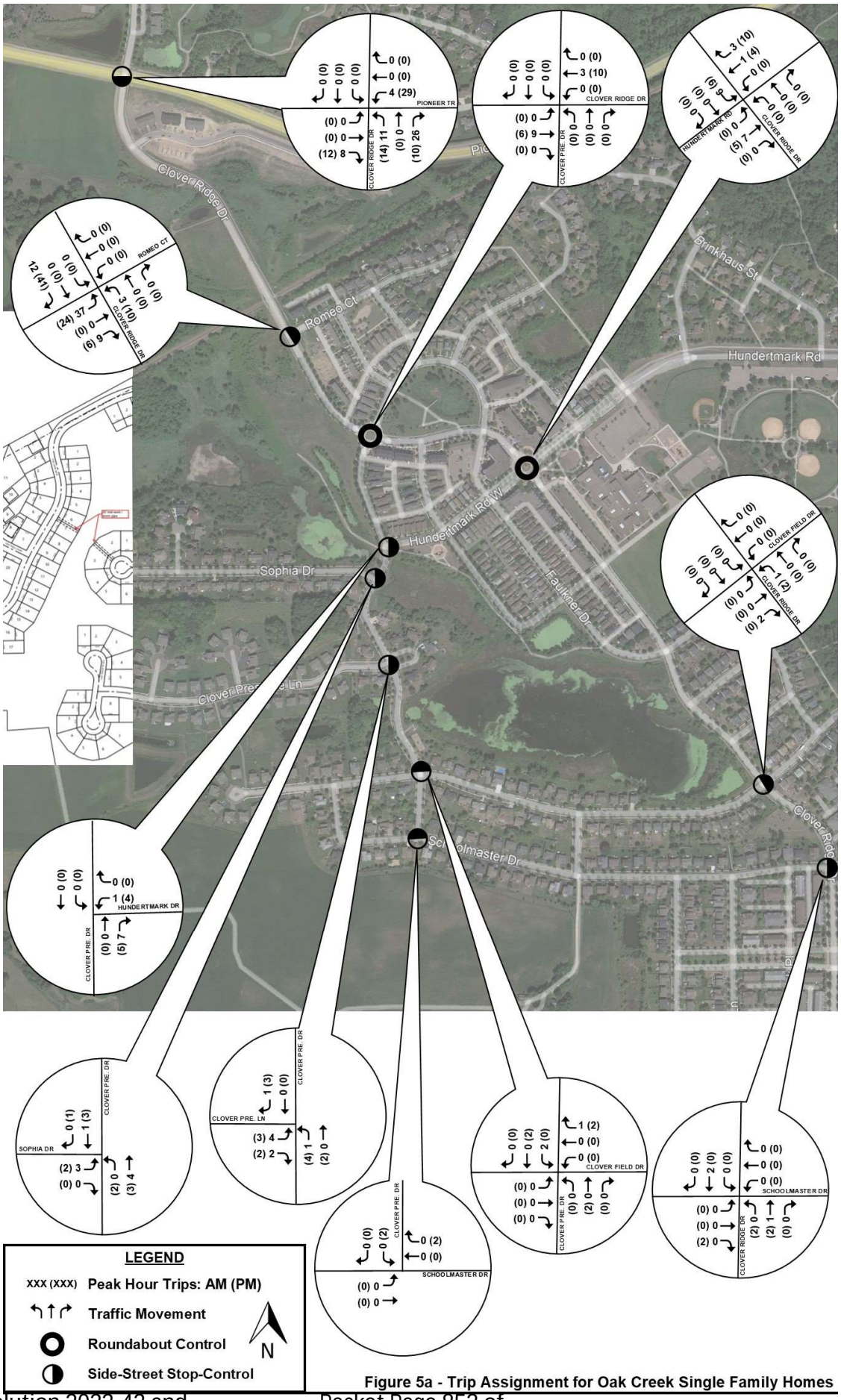


Figure 5a - Trip Assignment for Oak Creek Single Family Homes

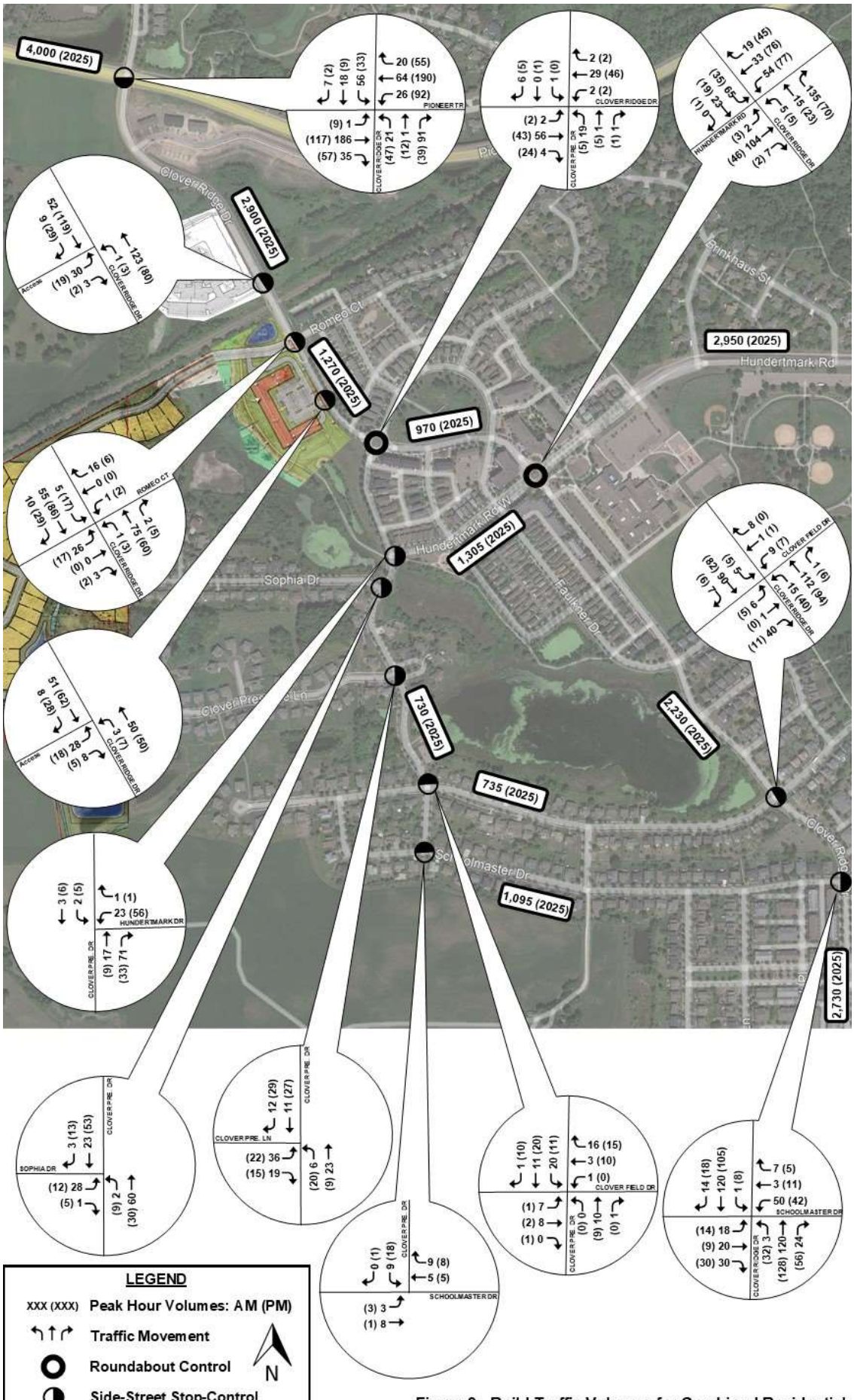


Figure 9 - Build Traffic Volumes for Combined Residential

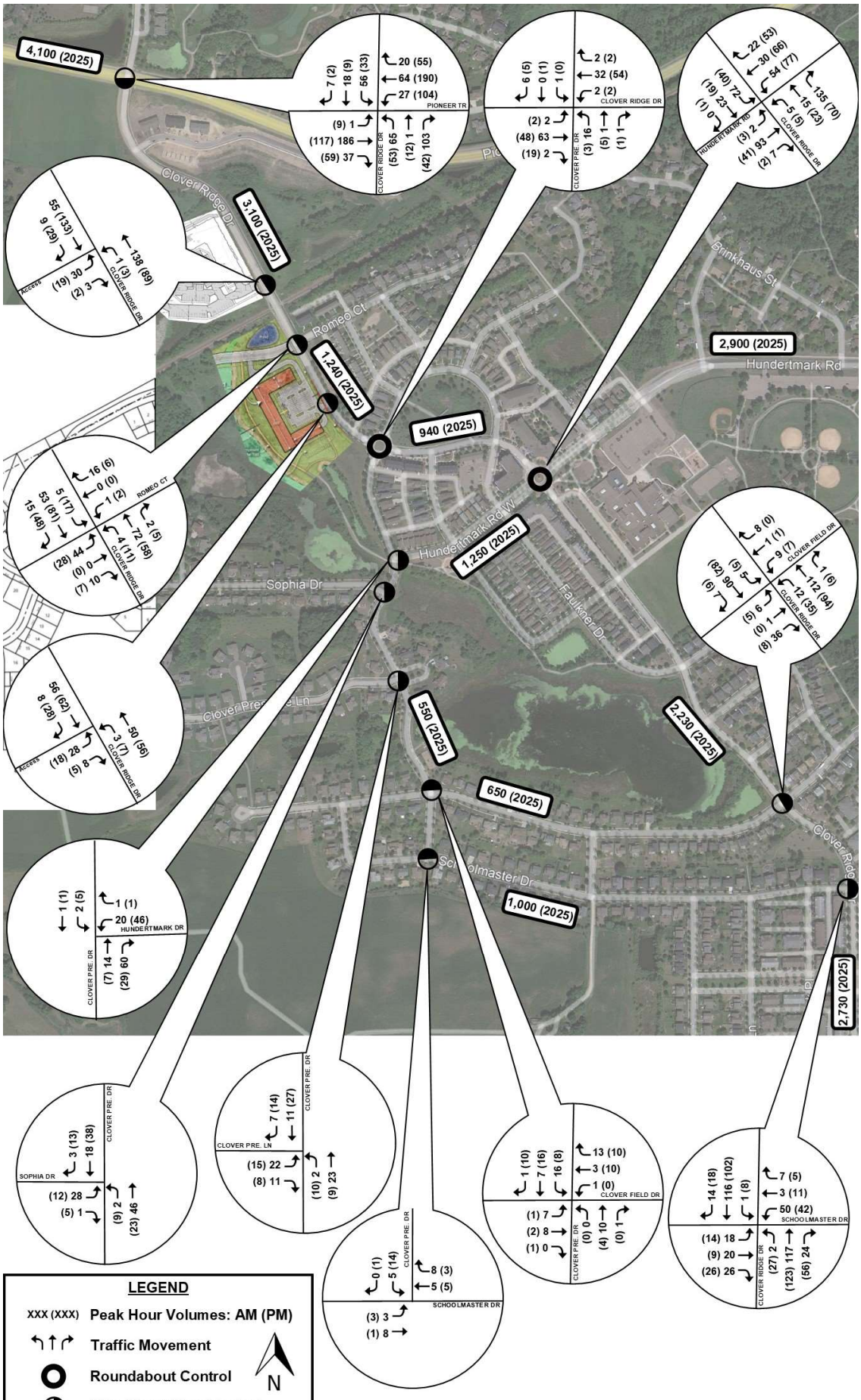


Figure 9a – Build Traffic Volumes for Combined Residential

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PRELIMINARY PLANS

FOR

PLAT, SITE, GRADING, EROSION CONTROL, UTILITIES AND TREE PRESERVATION

FOR

OAK CREEK

CHASKA, MN



Vicinity Map
(NOT TO SCALE)

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
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CONTACT: MIKE SUEL
PHONE: 952-985-7823
EMAIL: MSUEL@DRHORTON.COM

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Westwood

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Toll Free (888) 937-5150
12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343
westwoodps.com

Westwood Professional Services, Inc.

PROJECT NUMBER: 0024429.00
CONTACT: FRANCIS D. HAGEN

SHEET INDEX

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SHEET NUMBER	SHEET TITLE
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26	Tree Preservation Plan
27	Tree Preservation Plan & Data

BENCHMARKS

MnDOT CONTROL POINT "GUERN"
POINT #7002
EL = 970.38

MnDOT CONTROL POINT "VICTORY"
POINT #7003
EL = 995.14

HORIZONTAL DATUM
1983NAD (1986 ADJ) CARVER COUNTY COORDINATE SYSTEM; US SURVEY FOOT

VERTICAL DATUM
1988NAVD US SURVEY FOOT

NO.	DATE	REVISION	SHEETS
1	03/25/22	CITY REQUESTED UPDATES	ALL
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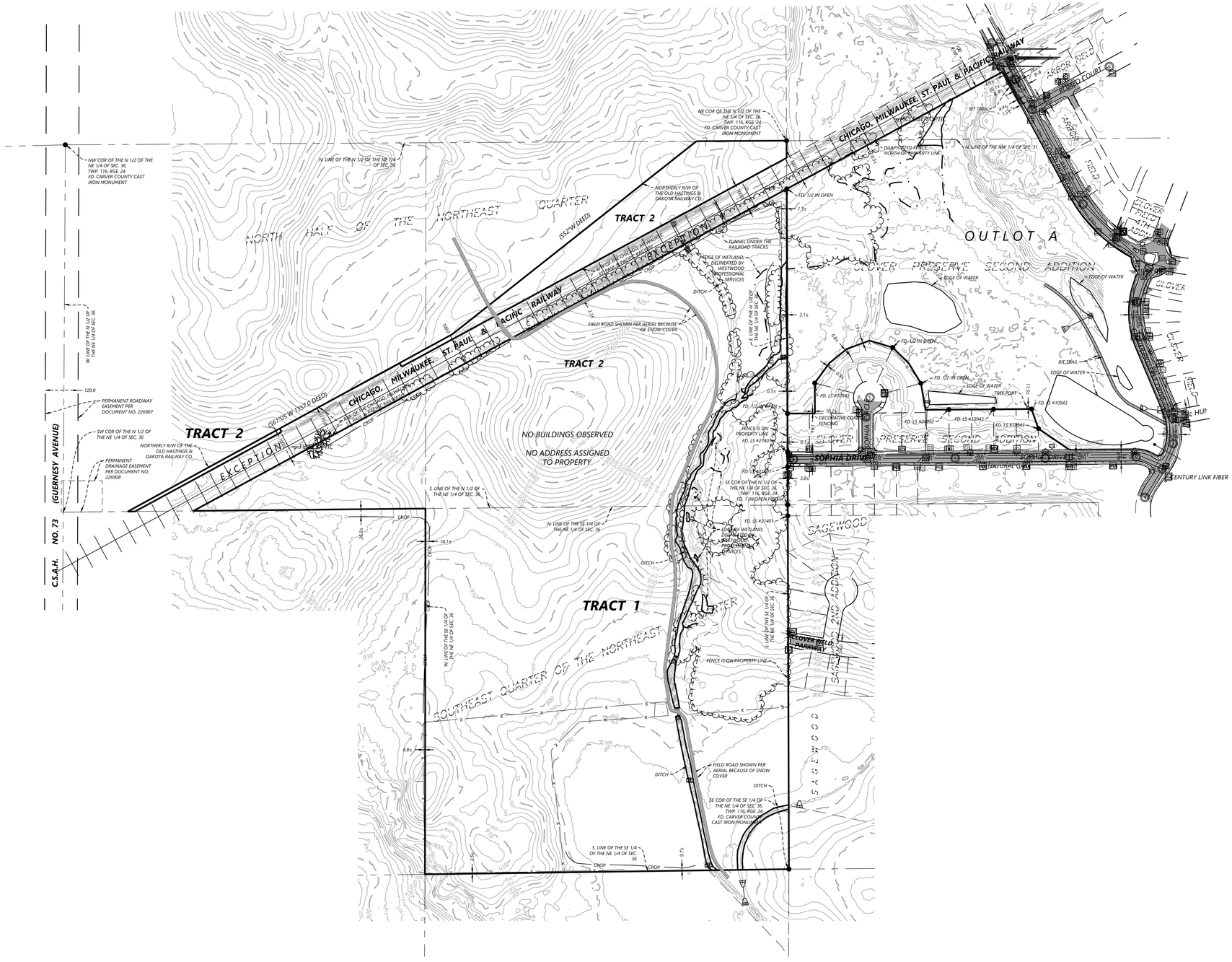
PRELIMINARY PLANS
FOR
PLAT, SITE, GRADING, EROSION CONTROL, UTILITIES AND TREE PRESERVATION
FOR
OAK CREEK
CHASKA, MN

INITIAL SUBMITTAL DATE: 03/01/2022 SHEET: 1 OF 27

C:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S-CVP01.DWG

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Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance



LEGAL DESCRIPTION

Tract 1:
The Southeast Quarter of the Northeast Quarter (SE 1/4 of NE 1/4) of Section 36, Township 116 North, Range 24 West of the Fifth Principal Meridian.

(Abstract)

Tract 2:
All that part of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of Section 36, Township 116, Range 24, lying Southerly of the Northerly boundary line of the old right of way of the Hastings and Dakota Railway Co. as located prior to the year 1912, and described by metes and bounds, as follows: Beginning at the Northeast corner of said Section 36, running thence West on the North line of said Section 36, 330 feet to a point on the Northerly boundary line of said right of way; thence South 52 degrees West along said boundary line 1138 feet; thence South 61 degrees, 5 minutes West along said boundary line 1357 feet to a point on the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, said point being 236 feet East from the Southwest corner of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36 thence East along the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, to the Southeast corner thereof; thence North on the section line to the place of beginning, EXCEPTING THEREFROM the right of way of the Chicago, Milwaukee and St. Paul Railway Co. as now located across said land as conveyed by deed, recorded in the office of the County Recorder, Carver County, Minnesota, in Book 23 of Deeds on page 304.

(Abstract)

AND

Outlot A, Clover Preserve Second Addition, Carver County, Minnesota

(Abstract)

LEGEND

- SANITARY MANHOLE
- SEWER CLEANOUT
- STORM MANHOLE
- BEEHIVE CATCH BASIN
- CATCH BASIN
- FLARED END SECTION
- CATCH BASIN MANHOLE
- HYDRANT
- GATE VALVE
- CURB STOP BOX
- ELECTRIC BOX
- STREET LIGHT
- TELEPHONE BOX
- HAND HOLE/JUNCTION BOX
- CABLE TV BOX
- FIBER OPTIC PEDESTAL
- STEEL/WOOD POST
- SIGN
- BOUNDARY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- SECTION LINE
- TREE LINE
- POWER UNDERGROUND
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- FIBER OPTIC
- FENCE LINE
- CURB & GUTTER
- CONCRETE SURFACE
- BITUMINOUS SURFACE
- GRAVEL SURFACE
- WETLAND
- FOUND MONUMENT (SEE LABEL)
- CAST IRON MONUMENT (SEE LABEL)

1" = 200'

0' 200' 400' 600'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\00244295-EXP01.DWG

OAK CREEK

DESIGNED: .
CHECKED: .
DRAWN: .
HORIZONTAL SCALE: 200'
VERTICAL SCALE: 40' OR 20'

INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
2 ---- ----
3 . .
4 . .
5 . .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA

MATHEW J. WELINSKI
DATE: 03/25/22 LICENSE NO. 53596

OAK CREEK
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

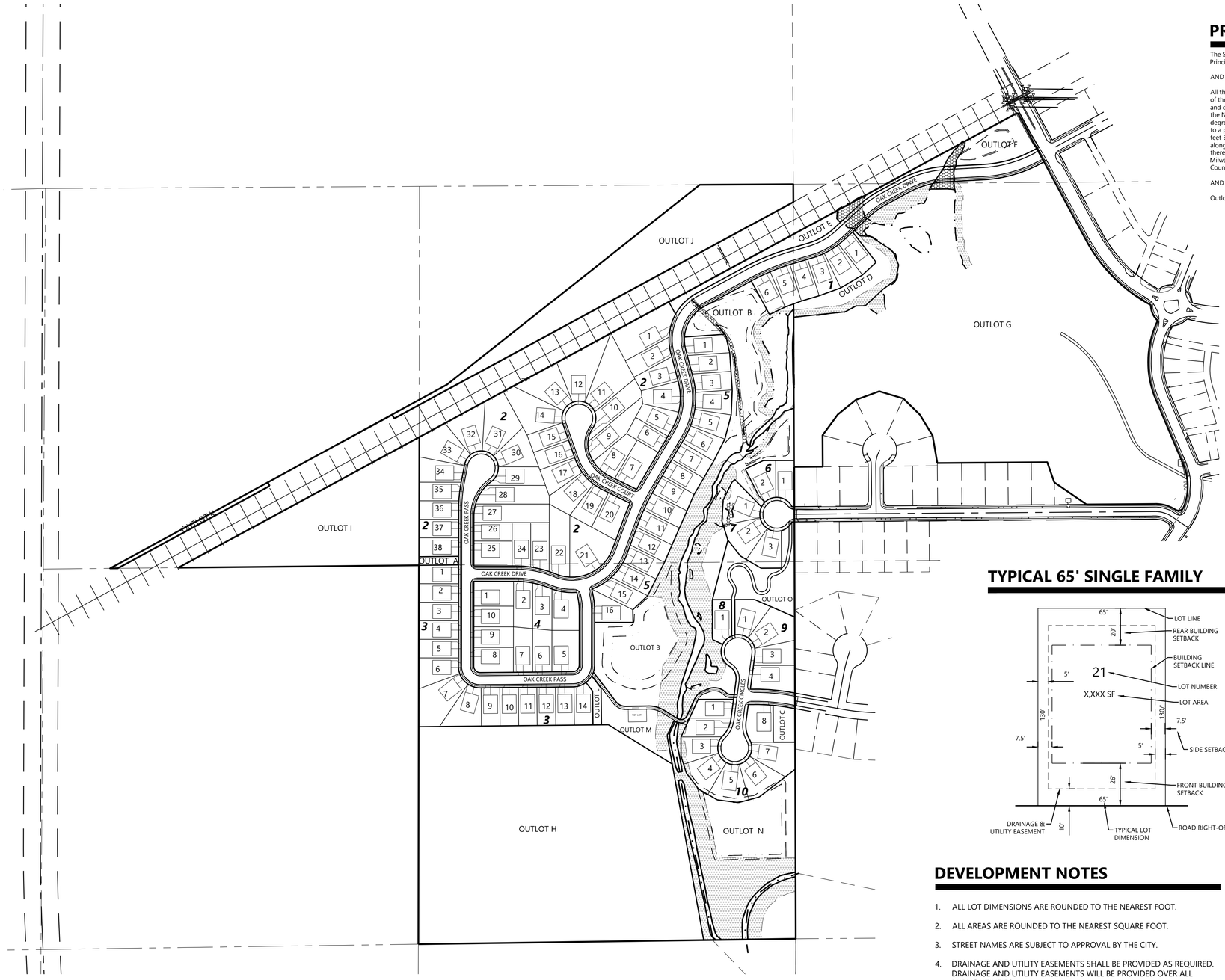
EXISTING CONDITIONS

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 2 OF 27
DATE: 03/25/22

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PROPERTY DESCRIPTION

The Southeast Quarter of the Northeast Quarter (SE 1/4 of NE 1/4) of Section 36, Township 116 North, Range 24 West of the Fifth Principal Meridian.

AND

All that part of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of Section 36, Township 116, Range 24, lying Southerly of the Northerly boundary line of the old right of way of the Hastings and Dakota Railway Co. as located prior to the year 1912, and described by metes and bounds, as follows: Beginning at the Northeast corner of said Section 36, running thence West on the North line of said Section 36, 330 feet to a point on the Northerly boundary line of said right of way; thence South 52 degrees West along said boundary line 1138 feet; thence South 61 degrees, 5 minutes West along said boundary line 1357 feet to a point on the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, said point being 236 feet East from the Southwest corner of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36; thence East along the South line of the North Half of the Northeast Quarter (N 1/2 of NE 1/4) of said Section 36, to the Southeast corner thereof; thence North on the section line to the place of beginning, EXCEPTING THEREFROM the right of way of the Chicago, Milwaukee and St. Paul Railway Co. as now located across said land and as conveyed by deed, recorded in the office of the County Recorder, Carver County, Minnesota, in Book 23 of Deeds on page 304.

AND

Outlot A, Clover Preserve 2nd Addition, Carver County, Minnesota

SITE DEVELOPMENT DATA

- EXISTING ZONING: O - OPEN DEVELOPMENT
- PROPOSED ZONING: PRD
- GROSS SITE AREA: 101.28 AC
  - OUTLOTS F THROUGH K: 48.99 AC
  - EXISTING WETLANDS / STREAM: 2.2 AC
- NET SITE AREA: 50.09 AC
- DEVELOPMENT SUMMARY
  - 65' SINGLE FAMILY LOTS: 102 HOMES
- PROJECT OPEN SPACE: 17.30 AC
  - OUTLOTS A-E & L-O (SEE OUTLOT TABLE BELOW)
- PROJECT DENSITY:
  - NET: ±2.03 UN/AC
  - ADJUSTED NET: ±3.11 UN/AC
    (NET SITE AREA, LESS OPEN SPACE)

TYPICAL 65' SINGLE FAMILY

OUTLOT TABLE

OUTLOT	USE	OWNERSHIP	GROSS AREA
A	FARM ACCESS	LANDOWNER	0.10 AC
B	WETLAND / PONDING / OPEN SPACE	CITY	8.83 AC
C	OPEN SPACE	HOA	0.22 AC
D	OPEN SPACE	CITY	0.86 AC
E	OPEN SPACE	HOA	0.50 AC
F	OPEN SPACE	LANDOWNER	0.97 AC
G	FUTURE DEVELOPMENT / WETLAND	LANDOWNER	23.51 AC
H	FARM LAND	LANDOWNER	16.03 AC
I	FARM LAND	LANDOWNER	4.41 AC
J	FARM LAND	LANDOWNER	3.88 AC
K	FARM LAND	LANDOWNER	0.19 AC
L	FARM ACCESS	LANDOWNER	0.12 AC
M	OPEN SPACE	HOA	0.90 AC
N	WETLAND / PONDING / OPEN SPACE	CITY	4.69 AC
O	OPEN SPACE	HOA	1.13 AC

LOT STANDARDS

STANDARD	65' SINGLE FAMILY
MINIMUM LOT AREA	8,575 SF
AVERAGE LOT AREA	11,651 SF
MINIMUM LOT WIDTH	65' @ FRT SBK
MINIMUM LOT DEPTH	130'
SETBACKS	
FRONT	26'
SIDE INTERIOR LOT	7.5' / 7.5'; 15' TOTAL
SIDE CORNER LOT	26'
REAR	20'
RAILROAD	50'
WETLAND BUFFER SBK	20'
STREAM BUFFER SBK	10'

DEVELOPMENT NOTES

1. ALL LOT DIMENSIONS ARE ROUNDED TO THE NEAREST FOOT.
2. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
3. STREET NAMES ARE SUBJECT TO APPROVAL BY THE CITY.
4. DRAINAGE AND UTILITY EASEMENTS SHALL BE PROVIDED AS REQUIRED. DRAINAGE AND UTILITY EASEMENTS WILL BE PROVIDED OVER ALL PUBLIC UTILITIES .
5. STREET WIDTHS ARE SHOWN FROM BACK OF CURB TO BACK OF CURB.

SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL
		WETLAND

1" = 200'
0' 200' 400' 600'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S_PPP01.DWG

OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	200'
VERTICAL SCALE:	40' OR 20'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA

NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY PLAT - OVERALL

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 3 OF 27
DATE: 03/25/22

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SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL
		WETLAND
		WETLAND/STREAM BUFFER
		WETLAND/STREAM BUFFER SETBACK

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILWAY
100' R/W

OUTLOT F
42,395 sf

OAK CREEK DRIVE
5' SIDEWALK

CLOVER RIDGE DRIVE

OUTLOT E
21,593 sf

OUTLOT D
37,646 sf

25' AVG WETLAND BUFFER

1
8,884 sf
2
10,030 sf
3
9,558 sf
4
8,846 sf
5
9,167 sf
6
9,167 sf
7
20 sf

OUTLOT B

POND

OUTLOT G
1,024,025 sf

CLOVER PRESERVE DRIVE

1" = 60'
0' 60' 120' 180'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S-PPP02.DWG

OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	60'
VERTICAL SCALE:	12' OR 6'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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DATE: 03/25/22 LICENSE NO. 53774

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CHASKA, MN

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Westwood Professional Services, Inc.

PRELIMINARY PLAT

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 4 OF 27
DATE: 03/25/22

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SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL
		WETLAND
		WETLAND/STREAM BUFFER
		WETLAND/STREAM BUFFER SETBACK

OUTLOT J
OUTLOT I
OUTLOT A 4,200 sf
OUTLOT B
OUTLOT O 49,082 sf
CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILWAY
100' RRD R/W
OAK CREEK DRIVE
OAK CREEK COURT
OAK CREEK PASS
SOPHIA DRIVE
5' SIDEWALK
25' AVG WETLAND BUFFER
50' AVG STREAM BUFFER
PROPOSED STREAM BUFFER
POND
10' TRAIL
OAK CREEK

1" = 60'
0' 60' 120' 180'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S-PPP02.DWG

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	60'
VERTICAL SCALE:	12' OR 6'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	-	-
4	-	-
5	-	-

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

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PRELIMINARY PLAT

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 5 OF 27
DATE: 03/25/22

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OUTLOT A
4,200 sf

OAK CREEK DRIVE

OAK CREEK PASS

OUTLOT B
POND
384,775 sf

OUTLOT L
5,099 sf

OUTLOT M
39,165 sf

TOT LOT

OUTLOT O
49,082 sf

OAK CREEK CIRCLES

OUTLOT C
9,640 sf

OUTLOT H
704,557 sf

OUTLOT N
POND
204,110 sf

PROPOSED STREAM BUFFER

PROPOSED 50' AVG / 25' MIN STREAM BUFFER

25' AVG WETLAND BUFFER

20' WETLAND BUFFER SETBACK

10' TRAIL

5' SIDEWALK

SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL
		WETLAND
		WETLAND/STREAM BUFFER
		WETLAND/STREAM BUFFER SETBACK

1" = 60'
0' 60' 120' 180'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S-PPP02.DWG

OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	60'
VERTICAL SCALE:	12' OR 6'

INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
2 ---- ----
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA

NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

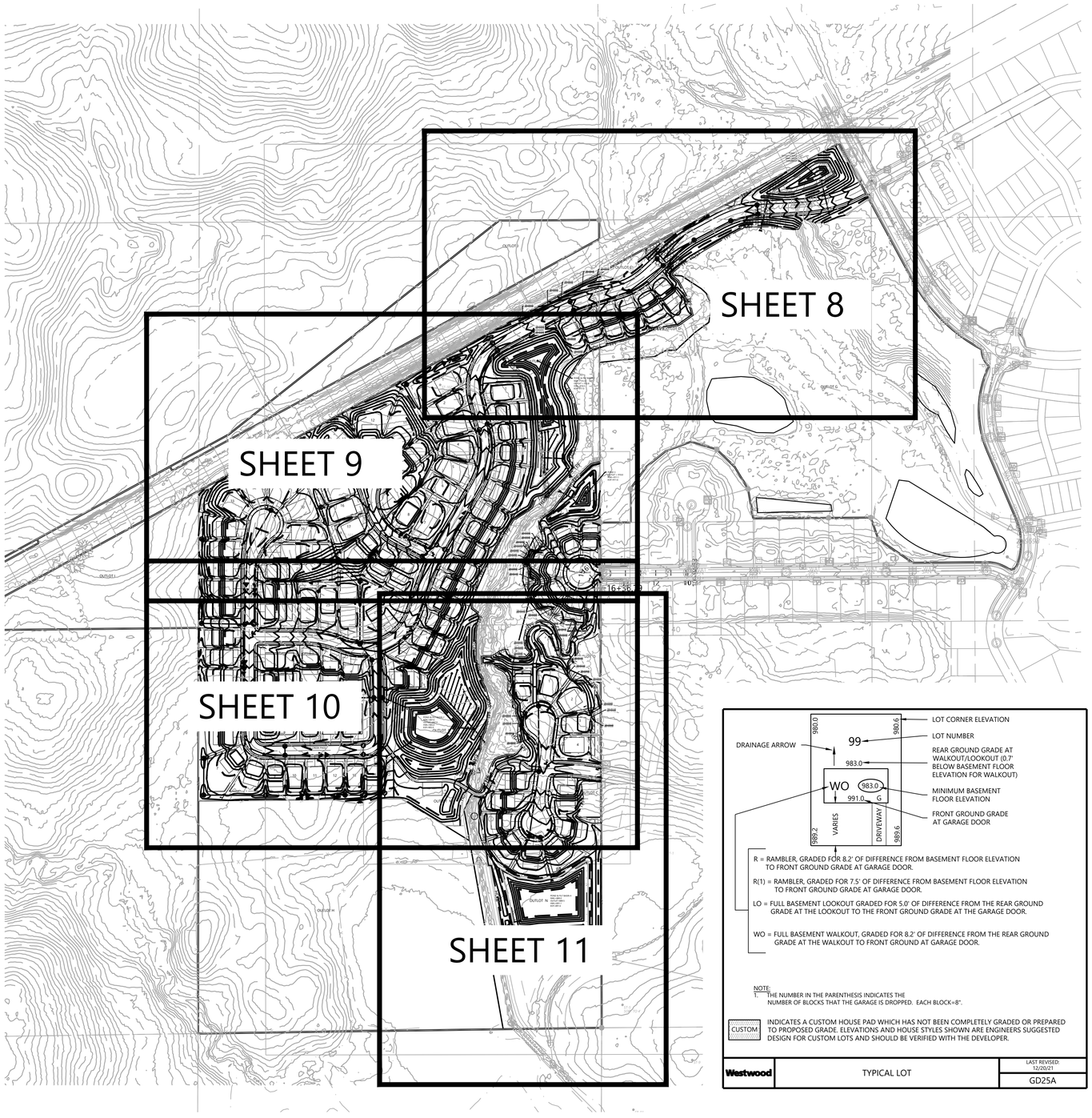
Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY PLAT

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 6 OF 27
DATE: 03/25/22

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GRADING & EROSION CONTROL LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
SB-19	SB-19	SOIL BORING LOCATION
980	980	INDEX CONTOUR
982	982	INTERVAL CONTOUR
× 900.00	× 900.00	SPOT ELEVATION
	× HP/LP 900.00	HIGH/LOW POINT
	× CL-CL 900.00	CL-CL ELEVATION
	0.00%	FLOW DIRECTION
	TW=XXX.XX BW=XXX.XX	TOP AND BOTTOM OF RETAINING WALL
	E.O.F.	EMERGENCY OVERFLOW
	X.XX%	PROPOSED STREET PROFILE GRADE
STO		STORM SEWER
		TREE LINE
	TPF	TREE PROTECTION FENCE
		RETAINING WALL (MODULAR BLOCK)
	GL	GRADING LIMITS
	SF	SILT FENCE
	POST-SF	SILT FENCE-POST GRADING
	HDSF	HEAVY DUTY SILT FENCE
	RSC	REDUNDANT SEDIMENT CONTROL
		INLET PROTECTION
		EROSION CONTROL CHECKS/BIOROLLS
		ROCK CONSTRUCTION ENTRANCE
		EROSION CONTROL BLANKET
		TURF REINFORCEMENT MAT
		POND NORMAL WATER LEVEL
		WETLAND LINE
		WETLAND FILL
		WETLAND BUFFER
		POND ACCESS MAINTENANCE BENCH
		WETLAND BUFFER LIMITS
		WETLAND BUFFER MONUMENT
	DND	DO NOT DISTURB

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GRADING & DRAINAGE NOTES

1. ALL CONTOURS AND SPOT ELEVATIONS ARE SHOWN TO FINISHED SURFACE/GUTTER GRADES UNLESS OTHERWISE NOTED.
2. REFER TO THE SITE PLAN/RECORD PLAT FOR MOST CURRENT HORIZONTAL SITE DIMENSIONS AND LAYOUT.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES WITH THE OWNERS AND FIELD-VERIFY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
4. ALL CONSTRUCTION SHALL CONFORM TO LOCAL RULES.
5. THE CONTRACTOR IS TO CONTACT GOPHER STATE "ONE CALL" FOR UTILITY LOCATIONS AT 651-454-0002.
6. THE GRADING CONTRACTOR MUST BE AWARE OF ALL EXISTING AND PROPOSED UTILITIES.
7. HAULING HOURS MUST BE CONFIRMED WITH THE CITY PRIOR TO BEGINNING WORK/
8. POSITIVE DRAINAGE FROM THE SITE MUST BE PROVIDED AT ALL TIMES.

EROSION CONTROL NOTES

1. ALL SILT FENCE AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. EXISTING SILT FENCE ON-SITE SHALL BE MAINTAINED AND OR REMOVED AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONTRACT. IT IS OF EXTREME IMPORTANCE TO BE AWARE OF CURRENT FIELD CONDITIONS WITH RESPECT TO EROSION CONTROL. TEMPORARY PONDING, DIKES, HAY BALES, ETC., REQUIRED BY THE CITY SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
2. ALL STREETS DISTURBED DURING WORKING HOURS MUST BE CLEANED AT THE END OF EACH WORKING DAY. A ROCK ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO DETAILS TO REDUCE TRACKING OF DIRT ONTO PUBLIC STREETS.
3. REDUNDANT PERIMETER SEDIMENT CONTROLS ARE NECESSARY WHEN SOIL DISTURBANCE IS WITHIN 50 FEET OF SURFACE WATERS. REDUNDANT SEDIMENT CONTROLS COULD INCLUDE:
   - 3.1. TWO ROWS OF SILT FENCE (SEPARATED BY 8 FEET); OR
   - 3.2. SILT FENCE AND A TOPSOIL BERM (STABILIZE BERM WITH MULCH); OR
   - 3.3. SILT FENCE AND FIBER LOGS; OR
   - 3.4. TOPSOIL BERM AND FIBER LOGS (STABILIZE BERM WITH MULCH).
4. REDUNDANT SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO DISTURBING WITHIN 50 FEET OF THE SURFACE WATER.

R = RAMBLER, GRADED FOR 8.2' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

R(1) = RAMBLER, GRADED FOR 7.5' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

LO = FULL BASEMENT LOOKOUT GRADED FOR 5.0' OF DIFFERENCE FROM THE REAR GROUND GRADE AT THE LOOKOUT TO THE FRONT GROUND GRADE AT THE GARAGE DOOR.

WO = FULL BASEMENT WALKOUT, GRADED FOR 8.2' OF DIFFERENCE FROM THE REAR GROUND GRADE AT THE WALKOUT TO FRONT GROUND AT GARAGE DOOR.

NOTE:
1. THE NUMBER IN THE PARENTHESIS INDICATES THE NUMBER OF BLOCKS THAT THE GARAGE IS DROPPED. EACH BLOCK=8".

CUSTOM — INDICATES A CUSTOM HOUSE PAD WHICH HAS NOT BEEN COMPLETELY GRADED OR PREPARED TO PROPOSED GRADE. ELEVATIONS AND HOUSE STYLES SHOWN ARE ENGINEERS SUGGESTED DESIGN FOR CUSTOM LOTS AND SHOULD BE VERIFIED WITH THE DEVELOPER.

Westwood	TYPICAL LOT	LAST REVISED: 12/20/21
		GD25A

1" = 200'

0' 200' 400' 600'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S-GDP01.DWG

OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	200'
VERTICAL SCALE:	40' OR 20'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY GRADING PLAN - OVERALL

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 7 OF 27
DATE: 03/25/22

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Call 48 Hours before digging:
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Common Ground Alliance

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILWAY

OUTLOT J

OUTLOT F

OUTLOT D

OUTLOT B

OAK CREEK DRIVE

CLOVER RIDGE DRIVE

POND 7
OUTLET = 934.0
HWL=935.0
EOF=937.5

FUTURE STORM SEWER
& OCS (BY OTHERS)

E.O.F.
937.5

STORM SEWER STUB

7,492 SF WETLAND IMPACT

9,442 SF WETLAND IMPACT

STUB STORM SEWER
FOR FUTURE DEVELOPMENT

1+00.00

POND & FILT BASIN 1
NWL = 912.0
OUTLET = 912.8
HWL=916.5
EOF=917.0

E.O.F.
916.5

E.O.F.
917.0

E.O.F.
916.5

TW=933.00
BW=933.00

TW=933.00
BW=931.00

TW=932.00
BW=926.00

TW=928.00
BW=924.00

TW=922.00
BW=922.00

TW=918.00
BW=918.00

TW=919.00
BW=916.50

TW=920.00
BW=916.00

TW=916.00
BW=916.00

ST-102
SOFT TO 10

DRAINAGE ARROW

LOT CORNER ELEVATION
LOT NUMBER
REAR GROUND GRADE AT WALKOUT/LOOKOUT (0.7' BELOW BASEMENT FLOOR ELEVATION FOR WALKOUT)
MINIMUM BASEMENT FLOOR ELEVATION
FRONT GROUND GRADE AT GARAGE DOOR

R = RAMBLER, GRADED FOR 8.2' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

R(1) = RAMBLER, GRADED FOR 7.5' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

LO = FULL BASEMENT LOOKOUT GRADED FOR 5.0' OF DIFFERENCE FROM THE REAR GROUND GRADE AT THE LOOKOUT TO THE FRONT GROUND GRADE AT THE GARAGE DOOR.

WO = FULL BASEMENT WALKOUT, GRADED FOR 8.2' OF DIFFERENCE FROM THE REAR GROUND GRADE AT THE WALKOUT TO FRONT GROUND AT GARAGE DOOR.

NOTE:
1. THE NUMBER IN THE PARENTHESIS INDICATES THE NUMBER OF BLOCKS THAT THE GARAGE IS DROPPED. EACH BLOCK=8".

CUSTOM — INDICATES A CUSTOM HOUSE PAD WHICH HAS NOT BEEN COMPLETELY GRADED OR PREPARED TO PROPOSED GRADE. ELEVATIONS AND HOUSE STYLES SHOWN ARE ENGINEERS SUGGESTED DESIGN FOR CUSTOM LOTS AND SHOULD BE VERIFIED WITH THE DEVELOPER.

Westwood | TYPICAL LOT | LAST REVISED: 12/20/21 | GD25A

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OAK CREEK

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: 50'
VERTICAL SCALE: 10' OR 5'

INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
2 ---- ----
3 . .
4 . .
5 . .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK
CHASKA, MN

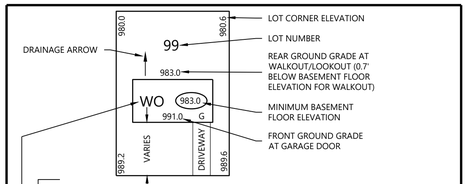
Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 8 OF 27
DATE: 03/25/22

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R = RAMBLER, GRADED FOR 8.2' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

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Westwood	TYPICAL LOT	LAST REVISED: 12/20/21
		GD25A

1" = 50'

0' 50' 100' 150'

NOT FOR CONSTRUCTION

Call 48 Hours Before Digging:
811 or call811.com
Common Ground Alliance

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILWAY

OAK CREEK DRIVE

OAK CREEK COURT

SOPHIA DRIVE

K CREEK PASS

OUTLOT B

POND & FILT BASIN 1
NWL = 912.0
OUTLET = 912.8
HWL=916.5
EOF=917.0

POND 3
OUTLET = 910.0
HWL=911.1
EOF=911.6

7,237 SF NON-JURISDICTIONAL WATER COURSE IMPACT

1,856 SF WETLAND IMPACT

HOME BUILDER TO CONSTRUCT RETAINING WALL AS NEEDED DURING HOME CONSTRUCTION TO MAINTAIN PROPER DRAINAGE

HOME BUILDER TO CONSTRUCT RETAINING WALL AS NEEDED DURING HOME CONSTRUCTION TO MAINTAIN PROPER DRAINAGE

OAK CREEK

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DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50'
VERTICAL SCALE:	10' OR 5'

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PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK

CHASKA, MN

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
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Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL

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SHEET NUMBER: 9 OF 27

DATE: 03/25/22

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HOME BUILDER TO CONSTRUCT RETAINING WALL AS NEEDED DURING HOME CONSTRUCTION TO MAINTAIN PROPER DRAINAGE

1,856 SF WETLAND IMPACT

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT M

TOT LOT

OAK CREEK DRIVE

OAK CREEK PASS

SOPHIA DRIVE

OAK CREEK CIRCLES

POND & FILT BASIN 2
NWL=897.0
OUTLET=897.9
HWL=905.4
EOF=905.9

1" = 50'

0' 50' 100' 150'

NOT FOR CONSTRUCTION

LOT CORNER ELEVATION
LOT NUMBER
DRAINAGE ARROW
REAR GROUND GRADE AT WALKOUT/LOOKOUT (0.7' BELOW BASEMENT FLOOR ELEVATION FOR WALKOUT)
MINIMUM BASEMENT FLOOR ELEVATION
FRONT GROUND GRADE AT GARAGE DOOR

R = RAMBLER, GRADED FOR 8.2' OF DIFFERENCE FROM BASEMENT FLOOR ELEVATION TO FRONT GROUND GRADE AT GARAGE DOOR.

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Westwood | TYPICAL LOT | LAST REVISED: 12/20/21 | GD25A

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OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK
CHASKA, MN

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL

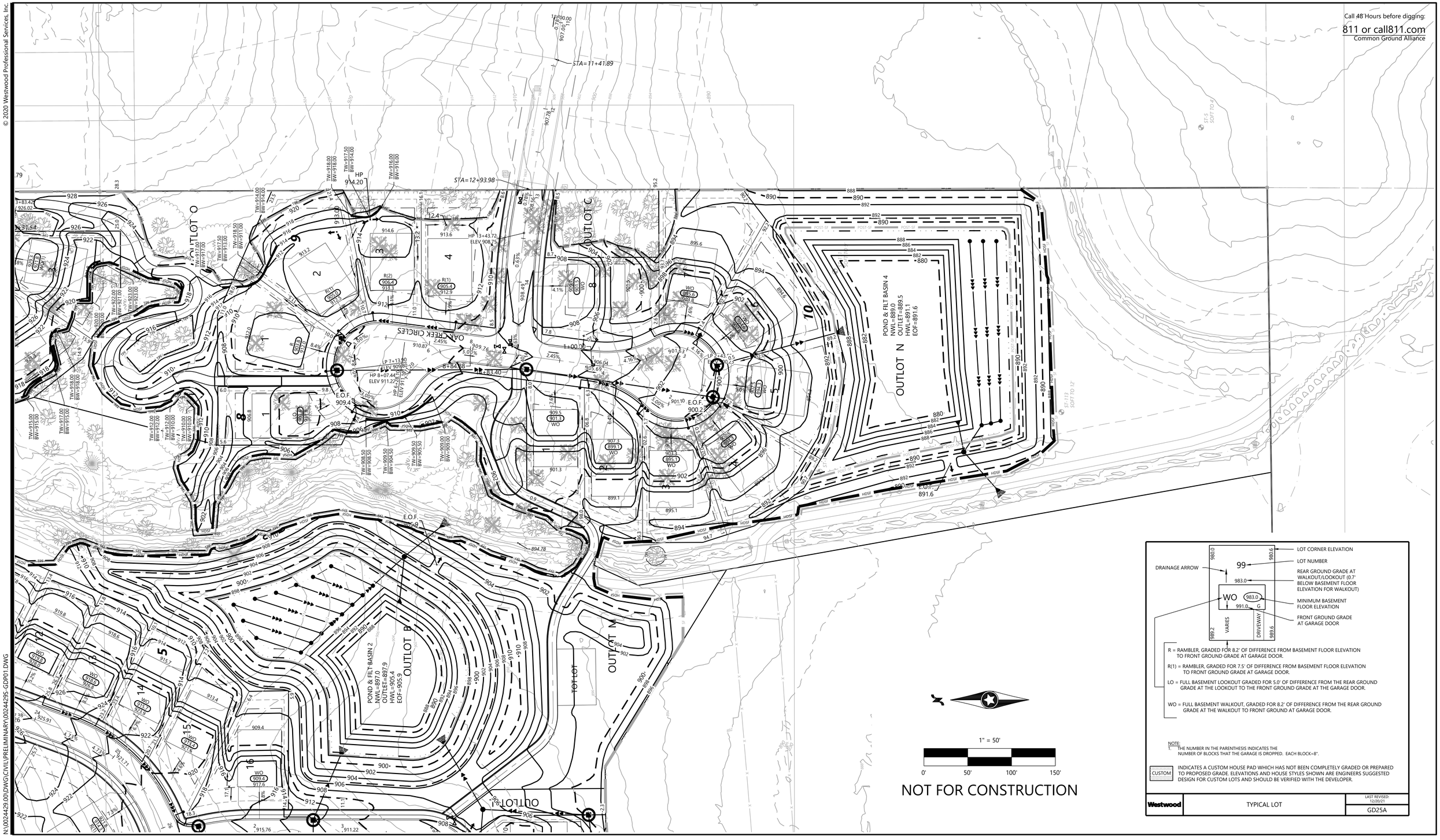
PROJECT NUMBER: 0024429.00

SHEET NUMBER: 10 OF 27

DATE: 03/25/22

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OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 03/01/2022
REVISIONS:

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5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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CHASKA, MN

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PRELIMINARY GRADING, DRAINAGE & EROSION CONTROL

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 11 OF 27

DATE: 03/25/22

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UTILITY LEGEND

EXISTING	PROPOSED	
SAN		SANITARY SEWER
STO		STORM SEWER
DT		DRAIN TILE
WAT		WATER MAIN
WAT		HYDRANT

GENERAL UTILITY NOTES

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OF ANY DIFFERENCES.
2. UNLESS OTHERWISE NOTED, ALL MATERIALS, CONST. TECHNIQUES AND TESTING SHALL CONFORM TO THE 2013 ED. OF THE "STANDARD UTILITIES SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION BY THE CITY ENGINEERING ASSOCIATION OF MINN." AND TO THE "STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION" MINN. DEPT. OF TRANS., AUGUST 31, 2016 INCLUDING THE CURRENT ADDENDUM. THE CONTRACTOR SHALL BE REQUIRED TO FOLLOW ALL PROCEDURES AS OUTLINED BY THE LOCAL AGENCY.
3. THE CONTRACTOR SHALL RECEIVE THE NECESSARY PERMITS FOR ALL WORK OUTSIDE OF THE PROPERTY LIMITS.
4. VERIFY EXISTING INVERT LOCATION & ELEVATION PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL CONTACT "GOPHER STATE ONE CALL" FOR FOR UTILITY LOCATIONS PRIOR TO UTILITY INSTALLATION.
6. WATER SERVICE SHALL BE INSTALLED WITH A MIN OF 7.5' OF COVER. THE CONTRACTOR SHALL VERIFY AS-BUILT CONSTRUCTION PLANS TO CHECK LOCATION AND MATERIAL TYPE.
7. ALL STORM SEWER PIPE SHALL BE CLASS 5 UNLESS OTHERWISE NOTED.
8. SEWER AND WATER SERVICES SHALL BE PLACED TO AVOID DRIVEWAYS.

1" = 100'
0' 100' 200' 300'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\00244295-UTP01.DWG

OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	100'
VERTICAL SCALE:	20' OR 10'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK
CHASKA, MN

Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

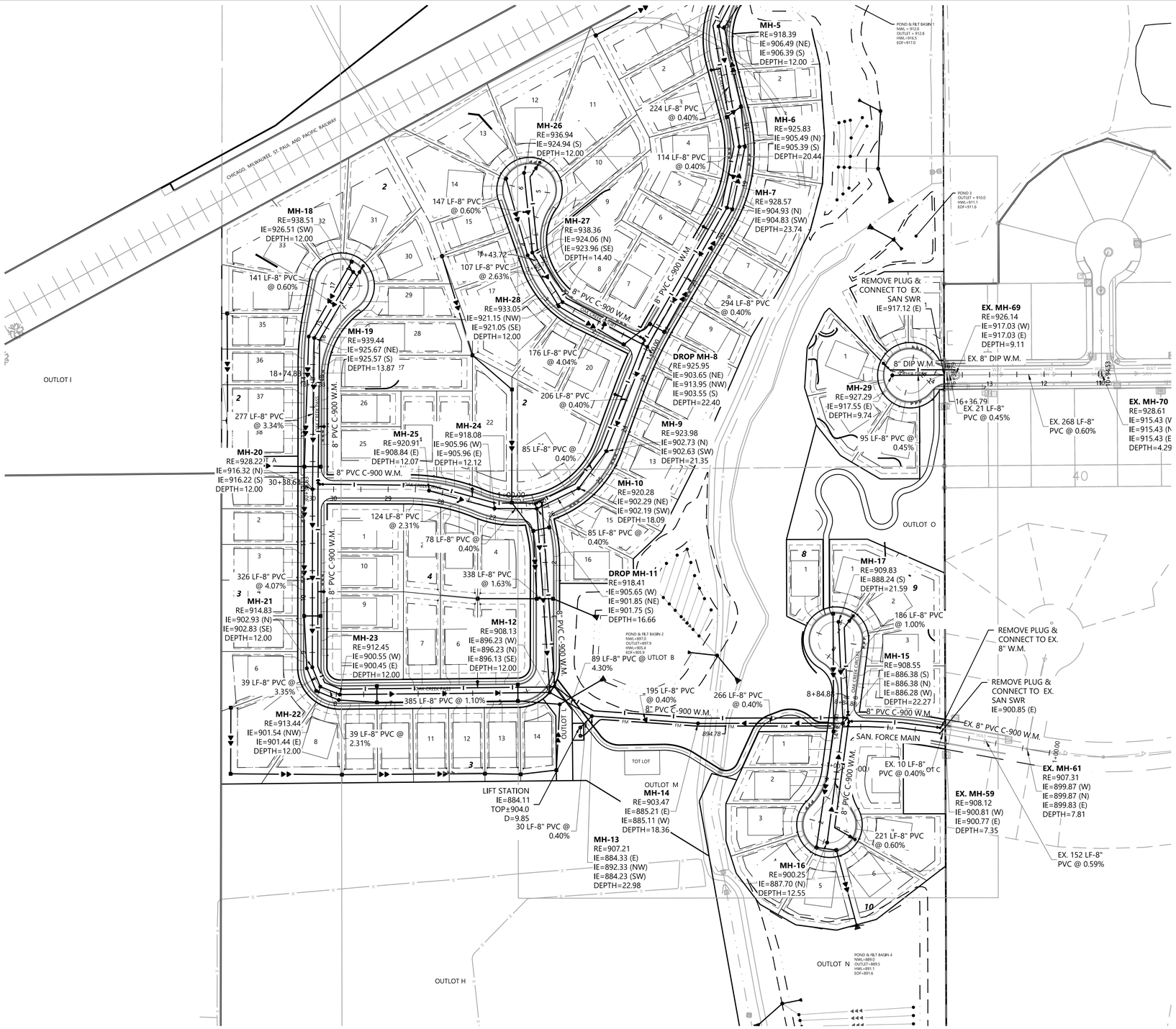
PRELIMINARY UTILITY PLAN - NORTH

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 12 OF 27

DATE: 03/25/22

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811 or call811.com
Common Ground Alliance

UTILITY LEGEND

EXISTING	PROPOSED	
SAN		SANITARY SEWER
STO		STORM SEWER
DT		DRAIN TILE
WAT		WATER MAIN
WAT		HYDRANT

GENERAL UTILITY NOTES

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4. VERIFY EXISTING INVERT LOCATION & ELEVATION PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL CONTACT "GOPHER STATE ONE CALL" FOR FOR UTILITY LOCATIONS PRIOR TO UTILITY INSTALLATION.
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7. ALL STORM SEWER PIPE SHALL BE CLASS 5 UNLESS OTHERWISE NOTED.
8. SEWER AND WATER SERVICES SHALL BE PLACED TO AVOID DRIVEWAYS.

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\00244295-UTP01.DWG

OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	100'
VERTICAL SCALE:	20' OR 10'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK
CHASKA, MN

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Fax (952) 937-5822 Minnetonka, MN 55343
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Westwood Professional Services, Inc.

PRELIMINARY UTILITY PLAN - SOUTH

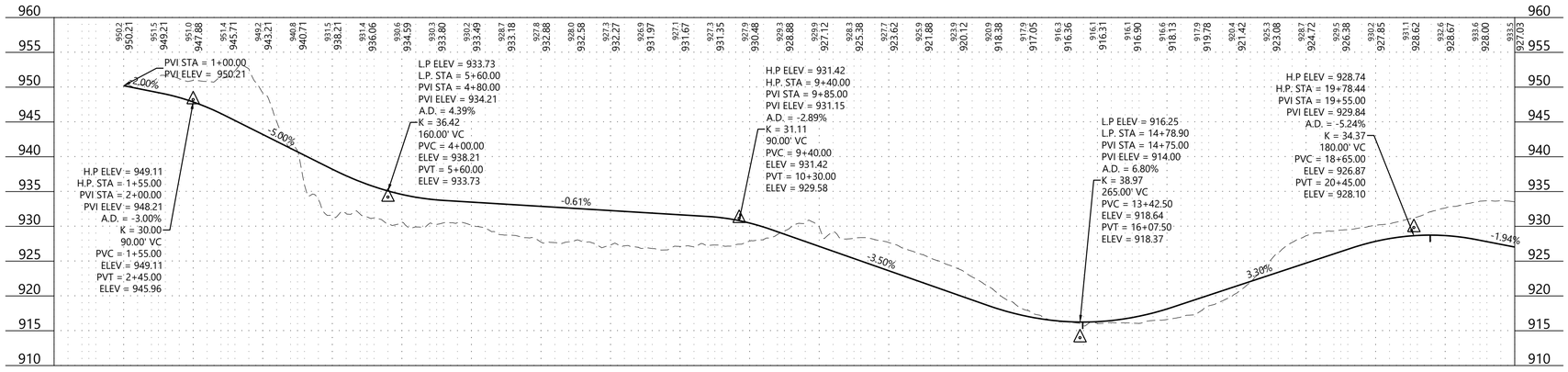
PROJECT NUMBER: 0024429.00

SHEET NUMBER: 13 OF 27
DATE: 03/25/22

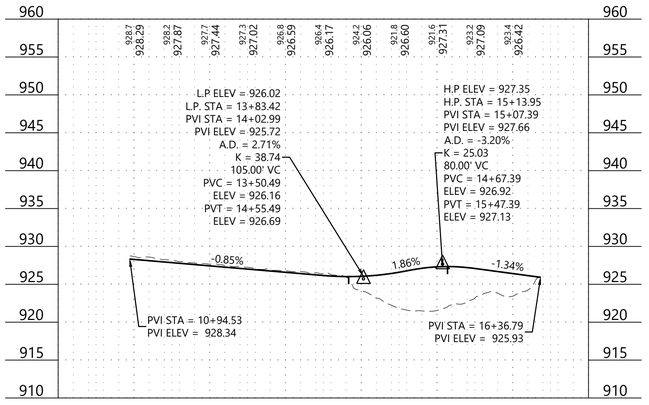
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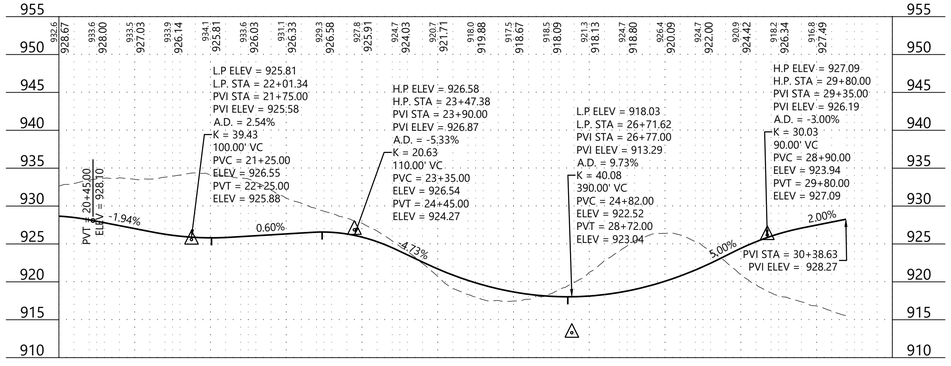
OAK CREEK DRIVE



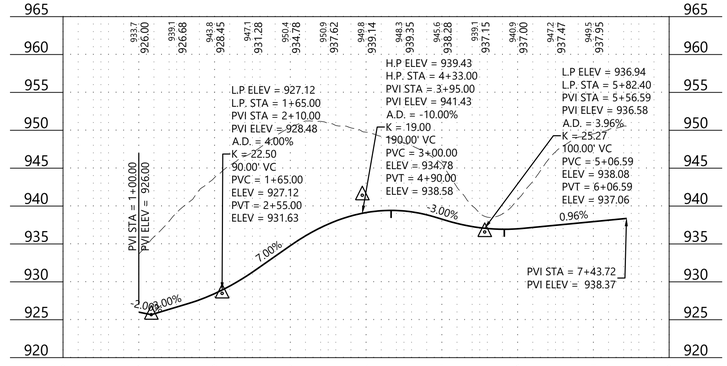
SOPHIA DRIVE



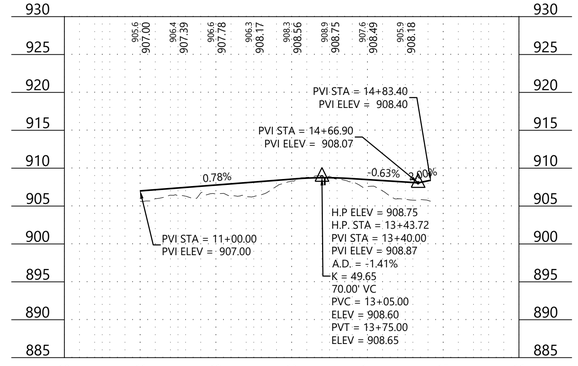
OAK CREEK DRIVE



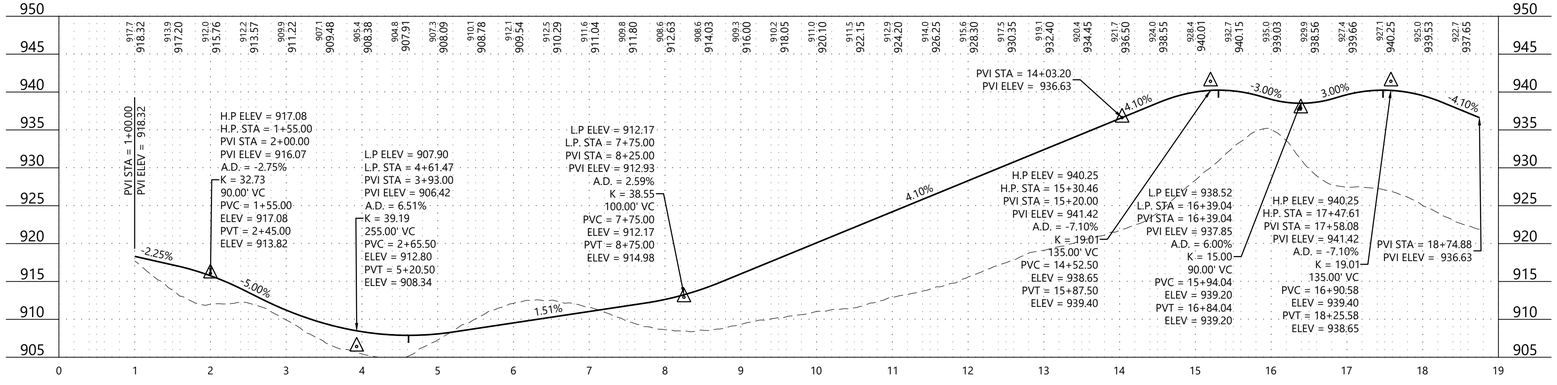
OAK CREEK COURT



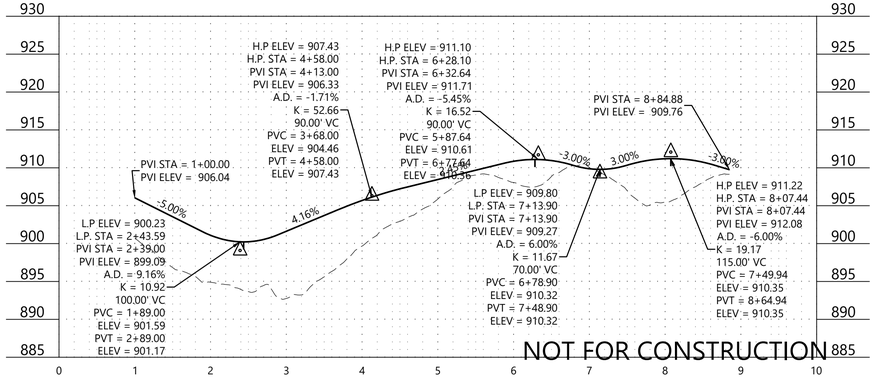
CLOVER PRESERVE LANE



OAK CREEK PASS



OAK CREEK CIRCLES



NOT FOR CONSTRUCTION

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OAK CREEK

DESIGNED:	CHF
CHECKED:	RMB
DRAWN:	CHF
HORIZONTAL SCALE:	99.999981'
VERTICAL SCALE:	20' OR 10'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
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PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK

CHASKA, MN

Westwood

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Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

STREET PROFILES

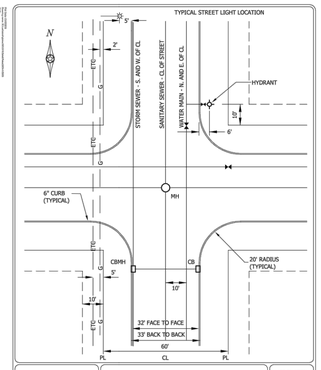
PROJECT NUMBER: 0024429.00

SHEET NUMBER: 14 OF 27

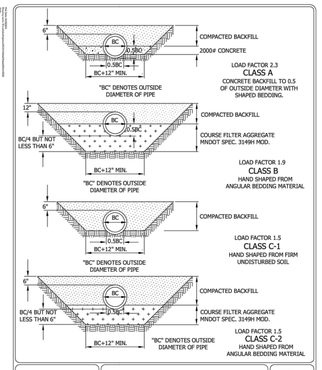
DATE: 03/25/22

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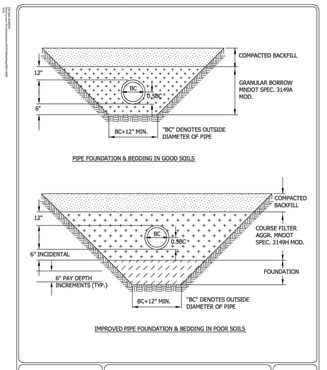
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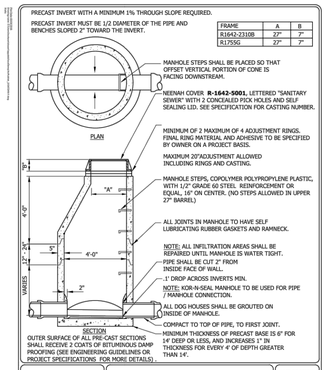
TYPICAL UTILITY LOCATIONS (PUBLIC AND PRIVATE)
CHASKA, MINNESOTA
LAST REVISION: MARCH 2016
PLATE NO. GEN-5



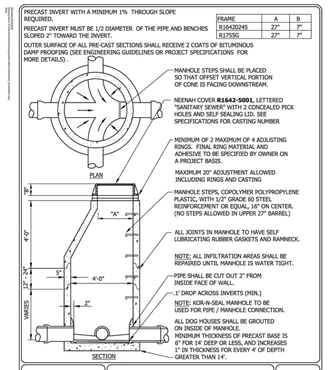
BEDDING METHODS FOR RCP OR DIP
CHASKA, MINNESOTA
LAST REVISION: MARCH 2001
PLATE NO. GEN-6



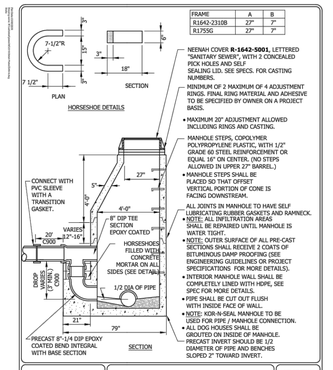
BEDDING METHODS FOR PVC
CHASKA, MINNESOTA
LAST REVISION: MARCH 2008
PLATE NO. GEN-7



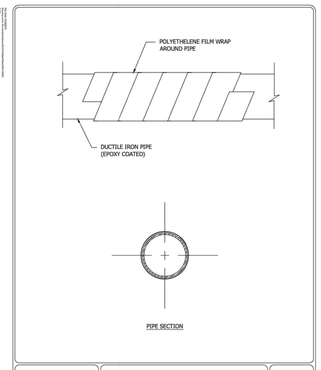
SANITARY SEWER MANHOLE
CHASKA, MINNESOTA
LAST REVISION: MARCH 2018
PLATE NO. SAN-1



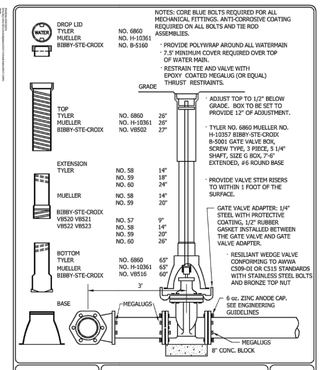
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CHASKA, MINNESOTA
LAST REVISION: MARCH 2018
PLATE NO. SAN-2



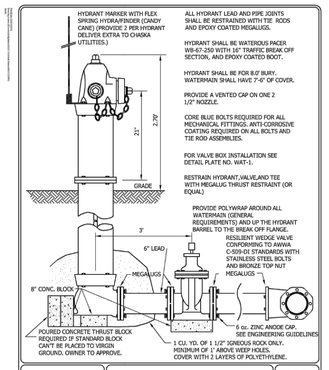
SANITARY SEWER DROP INLET MANHOLE
CHASKA, MINNESOTA
LAST REVISION: MARCH 2018
PLATE NO. SAN-4



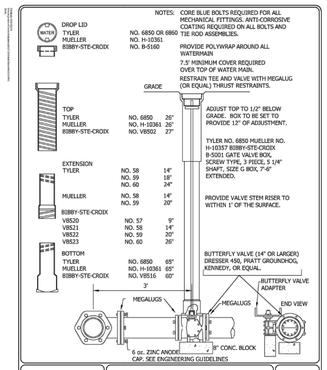
TYPICAL FORCEMAIN INSTALLATION
CHASKA, MINNESOTA
LAST REVISION: APRIL 2004
PLATE NO. SAN-7



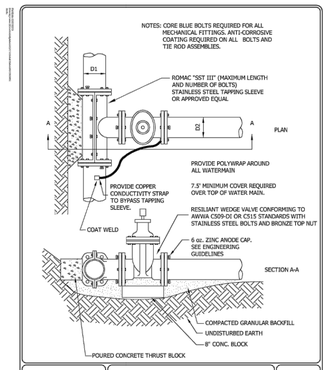
GATE VALVE AND BOX INSTALLATION
CHASKA, MINNESOTA
LAST REVISION: MARCH 2019
PLATE NO. WAT-1



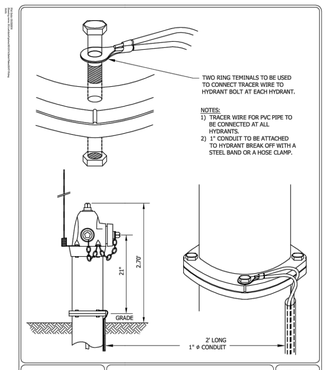
WATEROUS PACER HYDRANT AND VALVE INSTALLATION
CHASKA, MINNESOTA
LAST REVISION: MARCH 2019
PLATE NO. WAT-2



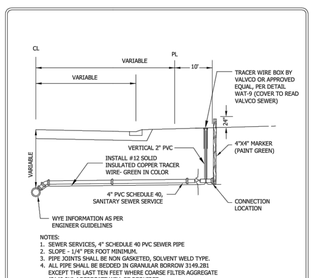
BUTTERFLY VALVE AND BOX INSTALLATION
CHASKA, MINNESOTA
LAST REVISION: MARCH 2019
PLATE NO. WAT-3



WATER MAIN WET TAP
CHASKA, MINNESOTA
LAST REVISION: MARCH 2019
PLATE NO. WAT-5

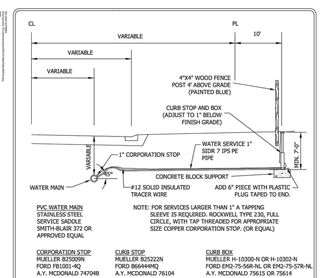


TRACER WIRE FOR PVC WATER MAIN
CHASKA, MN
LAST REVISION: APRIL 2008
PLATE NO. WAT-10



NOTES:
1. SEWER SERVICES, 4" SCHEDULE 40 PVC SEWER PIPE
2. SLOPE - 1/4" PER FOOT MINIMUM.
3. PIPE JOINTS SHALL BE NON GASKETED, SOLVENT WELD TYPE.
4. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 31-09.2B1 EXCEPT THE LAST TEN FEET WHERE COARSE FILTER AGGREGATE (31-09.2H) AGGREGATE WILL BE REQUIRED.
5. BENDS OF 45° OR LESS SHALL BE USED WITHIN THE LAST 5' OF THE SERVICE IF THE DEPTH OF THE SERVICE WOULD EXCEED 10'.
6. NO SERVICE RISERS LESS THAN 3 FEET SHALL BE PERMITTED.
7. A SEPARATE TRACER WIRE WILL EXTEND FROM THE FINISH GRADE AT TRACER WIRE BOX AND FOLLOW SEWER SERVICE TO STRUCTURE FOUNDATION. TRACER WIRE FROM BOX TO FOUNDATION BY OTHERS.
8. FOR DEPTHS GREATER THAN 22', SERVICE PIPE SHALL BE C900 FROM MAIN TO CONNECTION, WITH TRANSITION FITTING FROM C900 TO SCH 40 INSTALLED AT CONNECTION LOCATION.

SEWER SERVICE CONNECTION
CHASKA, MINNESOTA
LAST REVISION: APRIL 2016
PLATE NO. SER-1



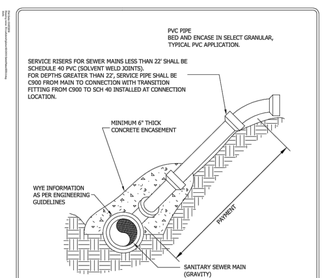
PVC WATER MAIN: STAINLESS STEEL SERVICE SADDLE SMITH-BLAIR 372 OR APPROVED EQUAL

NOTE: FOR SERVICES LARGER THAN 1" A TAPPING SLEEVE IS REQUIRED. ROCKWELL TYPE 230, FULL CIRCLE, WITH TAP THREADED FOR APPROPRIATE SIZE COPPER CORPORATION STOP. (OR EQUAL)

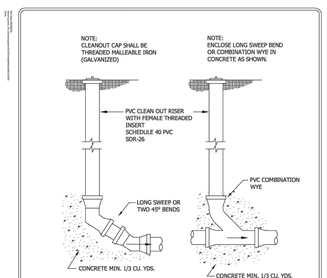
CORPORATION STOP	CURB STOP	CURB BOX
MUELLER B25009N	MUELLER B25222N	MUELLER H-10300-N OR H-10303-N
FORD FB1001-4Q	FORD B66444NQ	FORD EHQ-75-508-NL OR EHQ-75-578-NL
A.Y. MCDONALD 74704B	A.Y. MCDONALD 76104	A.Y. MCDONALD 75615 OR 75614

NOTES:
1. CURB BOX SHALL HAVE A STATIONARY ROD.
2. CURB BOX SHALL EXTEND FROM 70° TO 90°.
3. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 3149.2B1 EXCEPT THE LAST TEN FEET WHERE COARSE FILTER AGGREGATE (3149.2H) WILL BE REQUIRED.
4. IF CURB STOP IS IN DRIVEWAY, CONTRACTOR MUST INSTALL A FORD A-1 CASTING, MARKED WITH "WATER" ON LID.
5. CURB BOX LID SHALL BE MUELLER # B9375 "TW" OR EQUAL.
6. ALL BRASS FITTINGS SHALL BE "NO LEAD BRASS".
7. PIPE INSERT STIFFENERS REQUIRED FOR FITTING CONNECTIONS.
8. HDPE SERVICE PIPE SHALL BE MANUFACTURED BY ENDOPURE OR BLUE ULTRA PIPE.

WATER SERVICE CONNECTION HDPE PIPE
CHASKA, MINNESOTA
LAST REVISION: MARCH 2016
PLATE NO. SER-2A



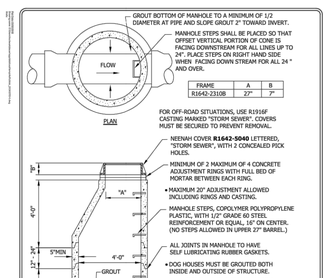
SERVICE RISER
CHASKA, MINNESOTA
LAST REVISION: MARCH 2016
PLATE NO. SER-3



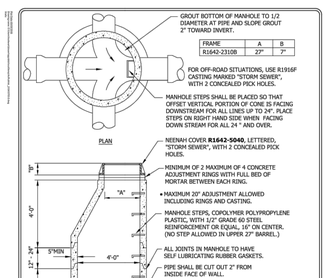
NOTE:
CLEANOUT IS REQUIRED FOR EVERY 100 FEET OF SERVICE LENGTH.

NOTE:
1. 3" CLEAN OUT IS IN DRIVEWAY, CONTRACTOR MUST INSTALL FORD A-1 CASTING, MARKED WITH "SEWER" ON LID.
2. 3" VALVE BOX IS IN ROADWAY, CONTRACTOR MUST INSTALL TOP SECTION OF A VALVE BOX WITH LID MARKED "SEWER".

SERVICE LINE CLEANOUTS
CHASKA, MINNESOTA
LAST REVISION: MARCH 2001
PLATE NO. SER-4



STORM SEWER MANHOLE
CHASKA, MINNESOTA
LAST REVISION: MARCH 2018
PLATE NO. STO-1



STORM SEWER JUNCTION MANHOLE
CHASKA, MINNESOTA
LAST REVISION: MARCH 2018
PLATE NO. STO-2

NOT FOR CONSTRUCTION

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OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	###
VERTICAL SCALE:	### OR ##

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK
CHASKA, MN

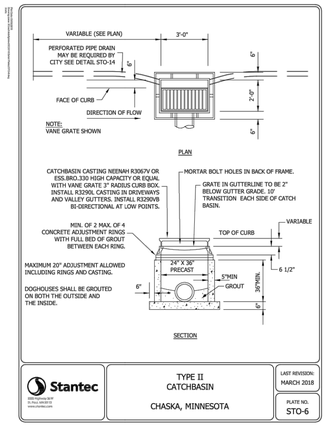
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Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

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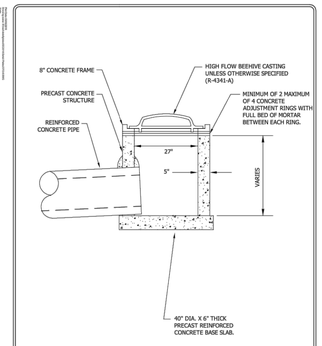
SHEET NUMBER: 15 OF 27
PROJECT NUMBER: 0024429.00
DATE: 03/25/22

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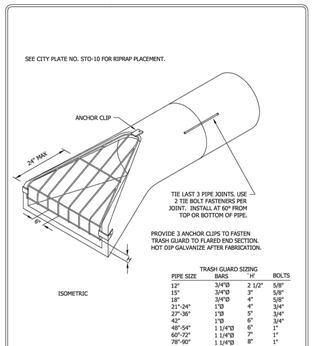
Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance



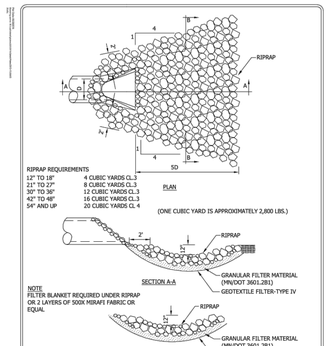
Stantec — TYPE II CATCHBASIN — CHASKA, MINNESOTA — LAST REVISION: MARCH 2018 — PLATE NO. STO-6



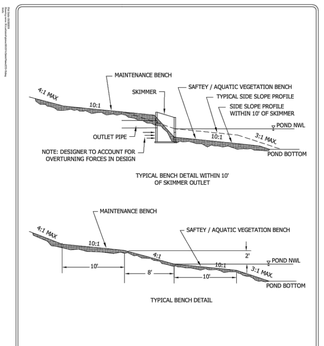
Stantec — PRECAST 27" SHALLOW DEPTH BEEHIVE — CHASKA, MINNESOTA — LAST REVISION: MARCH 2018 — PLATE NO. STO-9



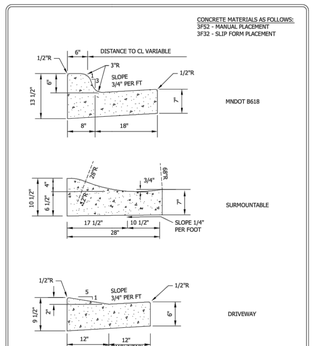
Stantec — FLARED END SECTION AND TRASH GUARD — CHASKA, MINNESOTA — LAST REVISION: FEB. 1995 — PLATE NO. STO-10



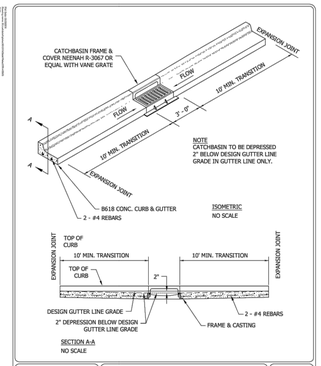
Stantec — RIPRAP AT OUTLETS — CHASKA, MINNESOTA — LAST REVISION: APRIL 2004 — PLATE NO. STO-11



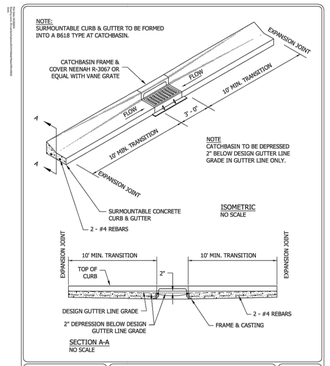
Stantec — TYPICAL BENCH DETAIL — CHASKA, MINNESOTA — LAST REVISION: MARCH 2001 — PLATE NO. STO-19



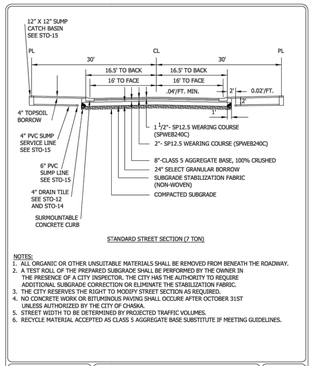
Stantec — CURB AND GUTTER — CHASKA, MINNESOTA — LAST REVISION: APRIL 2016 — PLATE NO. STR-1



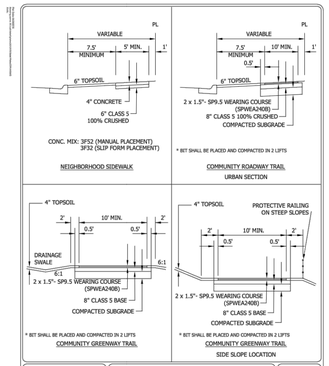
Stantec — B618 CURB & GUTTER CONSTRUCTION AT CATCHBASIN — CHASKA, MINNESOTA — LAST REVISION: MARCH 2008 — PLATE NO. STR-4



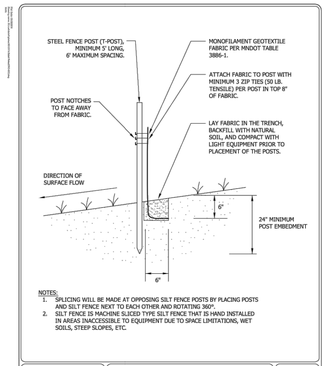
Stantec — SURMOUNTABLE CURB & GUTTER CONSTRUCTION AT CATCHBASIN — CHASKA, MINNESOTA — LAST REVISION: MARCH 2008 — PLATE NO. STR-5



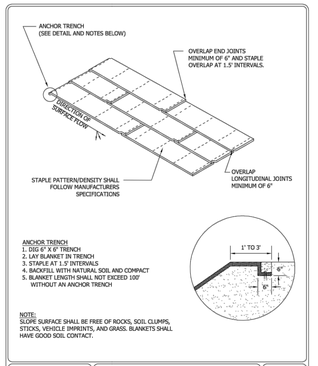
Stantec — TYPICAL SECTIONS FOR RESIDENTIAL STREETS 7 TON SECTION — CHASKA, MINNESOTA — LAST REVISION: JUNE 2012 — PLATE NO. STR-7



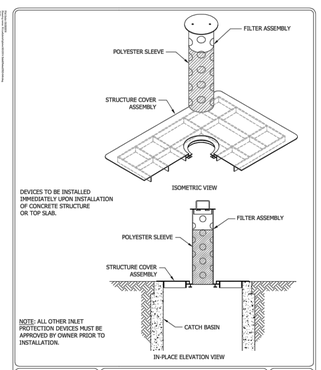
Stantec — TYPICAL PLACEMENT AND SECTION FOR WALKS AND TRAILS — CHASKA, MINNESOTA — LAST REVISION: APRIL 2016 — PLATE NO. STR-9



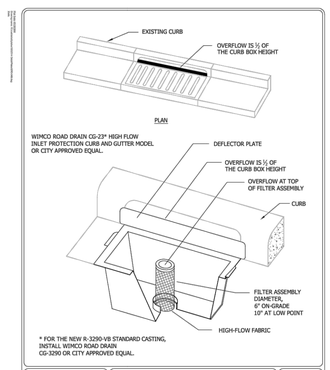
Stantec — SILT FENCE STANDARD — CHASKA, MINNESOTA — LAST REVISION: APRIL 2008 — PLATE NO. ERO-1C



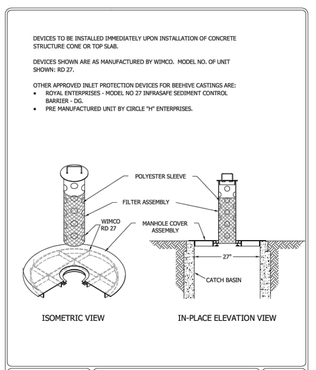
Stantec — EROSION CONTROL BLANKET INSTALLATION — CHASKA, MINNESOTA — LAST REVISION: APRIL 2008 — PLATE NO. ERO-2



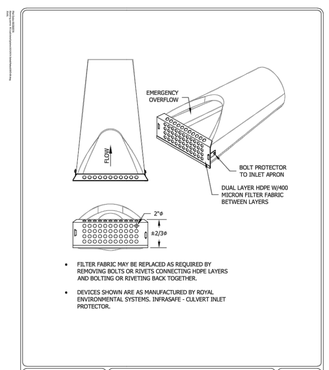
Stantec — INLET PROTECTION FOR CATCH BASIN BEFORE CURB CONSTRUCTION — CHASKA, MINNESOTA — LAST REVISION: APRIL 2008 — PLATE NO. ERO-4A



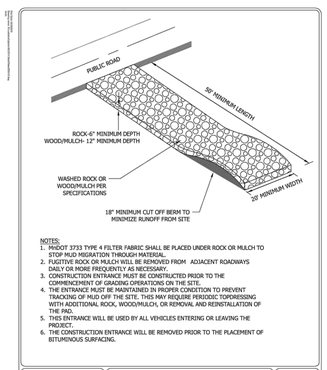
Stantec — INLET PROTECTION - CATCH BASIN INSERT AFTER CURB CONSTRUCTION — CHASKA, MINNESOTA — LAST REVISION: APRIL 2008 — PLATE NO. ERO-4B



Stantec — INLET PROTECTION BEEHIVE CASTING — CHASKA, MINNESOTA — LAST REVISION: APRIL 2008 — PLATE NO. ERO-4C



Stantec — FLARED END EROSION CONTROL — CHASKA, MINNESOTA — LAST REVISION: FEB 2005 — PLATE NO. ERO-6



Stantec — ROCK CONSTRUCTION ENTRANCE — CHASKA, MINNESOTA — LAST REVISION: APRIL 2008 — PLATE NO. ERO-7



Stantec — SLOPE TRACKING — CHASKA, MINNESOTA — LAST REVISION: FEB 2004 — PLATE NO. ERO-10

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OAK CREEK

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: ###
VERTICAL SCALE: ### OR ##

INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
2 ---- ----
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
FRANCIS D. HAGEN
DATE: 03/25/22 LICENSE NO. 17716

OAK CREEK
CHASKA, MN

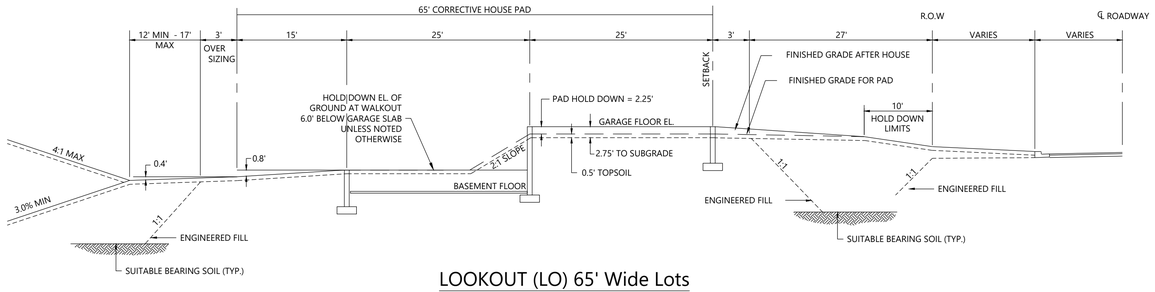
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Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

DETAILS

SHEET NUMBER: 16 OF 27
PROJECT NUMBER: 0024429.00
DATE: 03/25/22

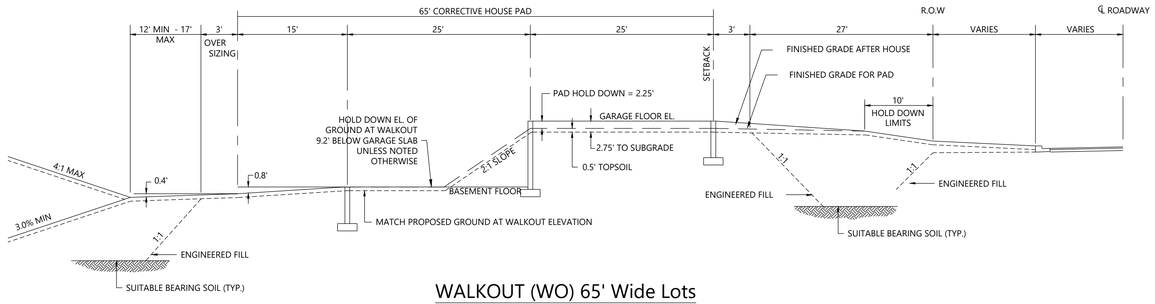
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811 or call811.com
Common Ground Alliance



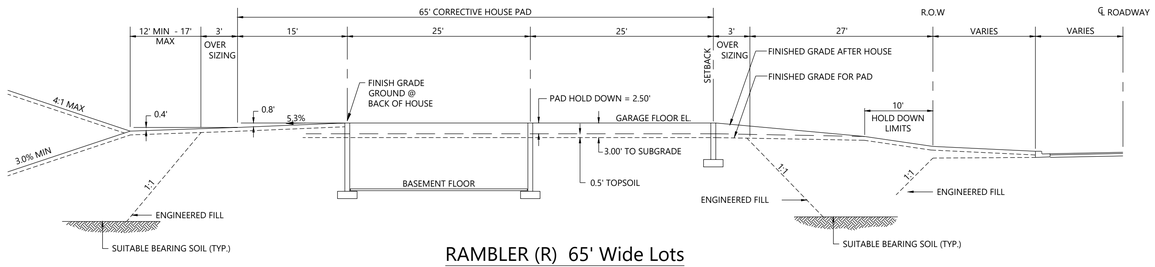
LOOKOUT (LO) 65' Wide Lots

N.T.S.



WALKOUT (WO) 65' Wide Lots

N.T.S.



RAMBLER (R) 65' Wide Lots

N.T.S.

NOT FOR CONSTRUCTION

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OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	###
VERTICAL SCALE:	### OR ##

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
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3	.	.
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PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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OAK CREEK
CHASKA, MN

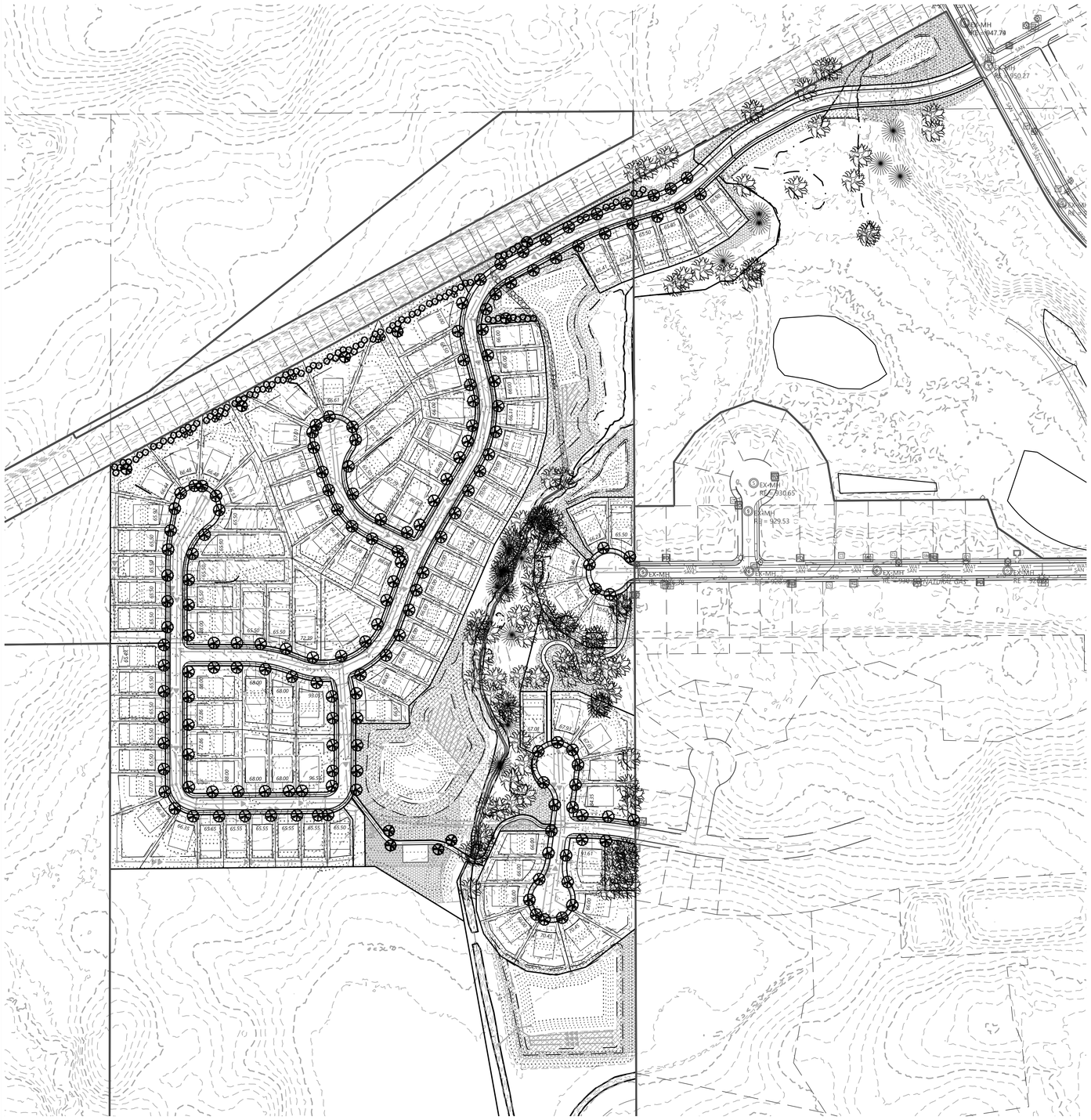
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DETAILS

PROJECT NUMBER: 0024429.00

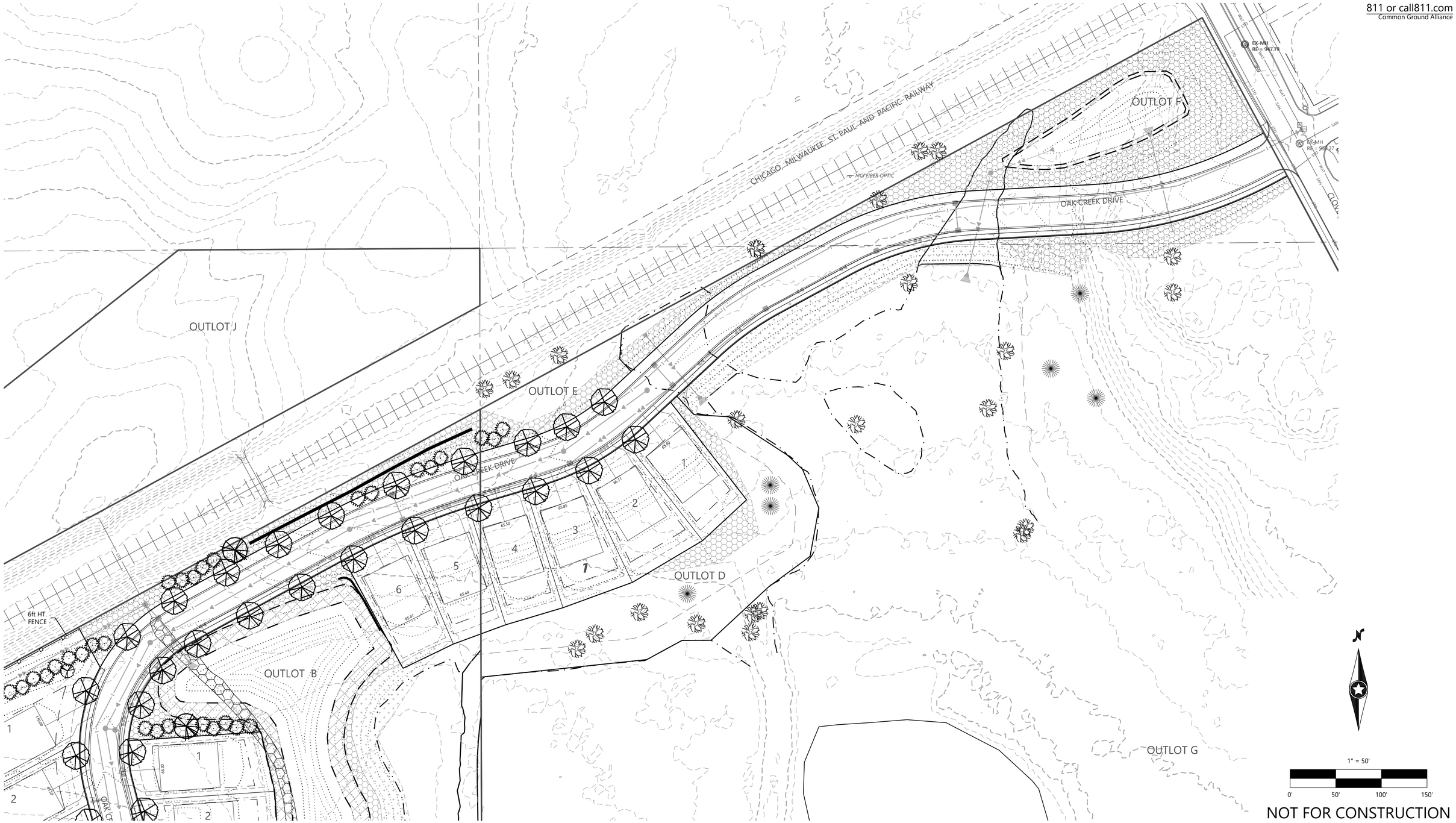
SHEET NUMBER: 17 OF 27
DATE: 03/25/22

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OAK CREEK

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: ##########
VERTICAL SCALE: ### OR ###

INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
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5 . .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA

NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
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PRELIMINARY LANDSCAPE PLAN

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 19 OF 27
DATE: 03/25/22

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OAK CREEK

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INITIAL ISSUE: 03/01/2022

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PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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NICHOLAS T. MEYER

DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK

CHASKA, MN

Westwood

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PRELIMINARY LANDSCAPE PLAN

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 20 OF 27

DATE: 03/25/22

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OAK CREEK

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CHECKED:	FDH II
DRAWN:	ACB
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VERTICAL SCALE:	### OR ###

INITIAL ISSUE: 03/01/2022
REVISIONS:

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PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

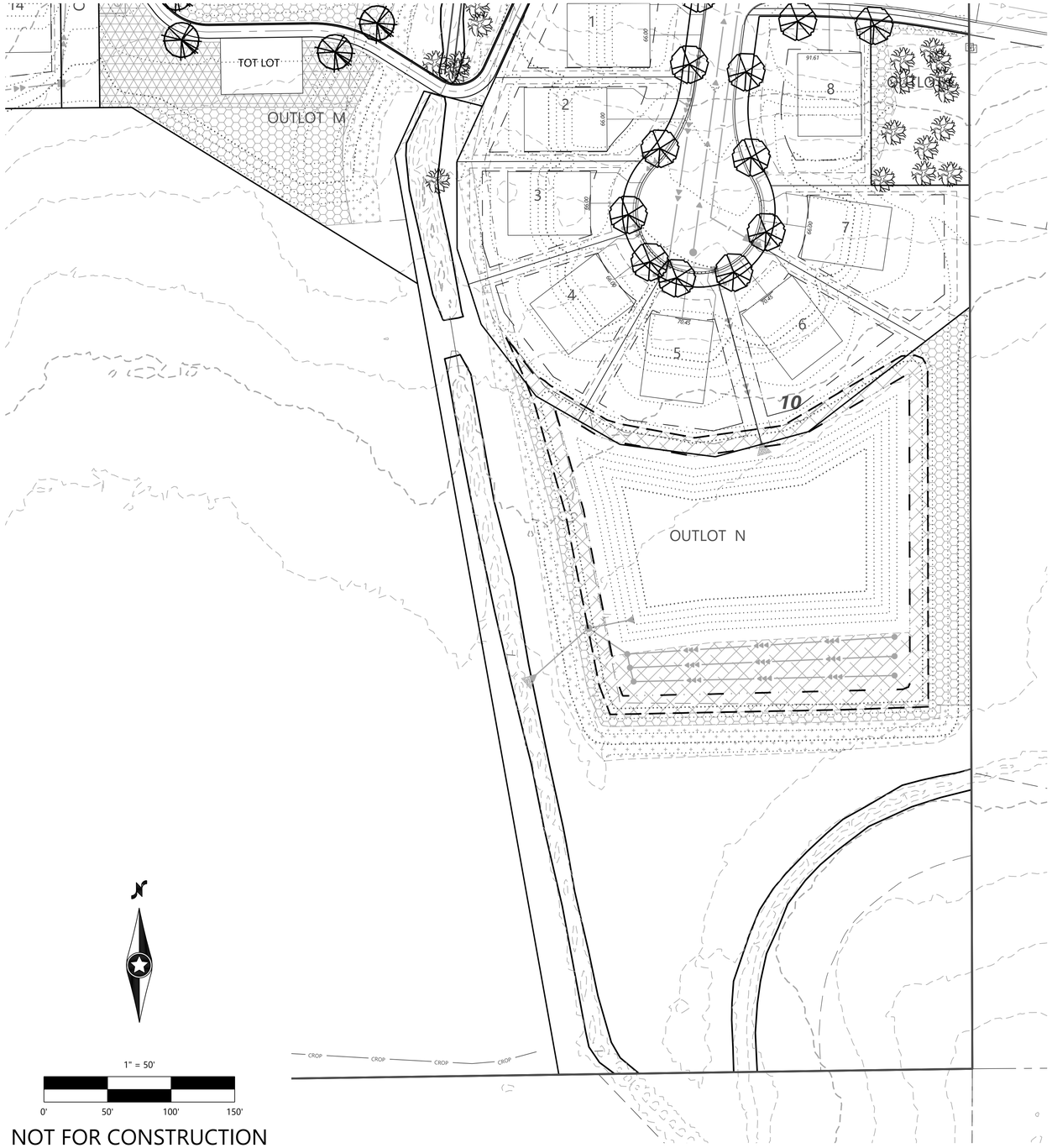
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PRELIMINARY LANDSCAPE PLAN

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 21 OF 27
DATE: 03/25/22

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1" = 50'

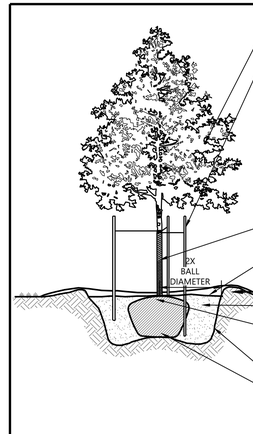
0' 50' 100' 150'

NOT FOR CONSTRUCTION

PLANTING NOTES

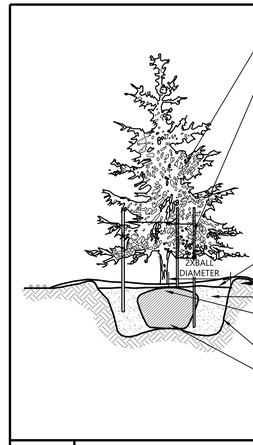
1. CONTRACTOR SHALL CONTACT COMMON GROUND ALLIANCE AT 811 OR CALL811.COM TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANTS OR LANDSCAPE MATERIAL.
2. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR.
5. CONTRACTOR SHALL PROVIDE TWO YEAR GUARANTEE OF ALL PLANT MATERIALS. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
6. ALL PLANTS TO BE SPECIMEN GRADE, MINNESOTA-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
   ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, SCARS, ETC.
   ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
   ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
   ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
   CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.
7. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
8. PLANTS TO BE INSTALLED AS PER MNLA & ANSI STANDARD PLANTING PRACTICES.
9. PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
10. PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
11. OPEN TOP OF BURLAP ON BB MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS.
12. PRUNE PLANTS AS NECESSARY - PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
13. WRAP ALL SMOOTH-BARKED TREES - FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
14. STAKING OF TREES AS REQUIRED; REPOSITION, PLUMB AND STAKE IF NOT PLUMB AFTER ONE YEAR.
15. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
16. BACKFILL SOIL AND TOPSOIL TO ADHERE TO MN/DOT STANDARD SPECIFICATION 3877 (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 4" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 12" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
17. MULCH TO BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS. TREE AND SHRUB PLANTING BEDS SHALL HAVE 4" DEPTH OF SHREDDED HARDWOOD MULCH. SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. PERENNIAL AND ORNAMENTAL GRASS BEDS SHALL HAVE 2" DEPTH SHREDDED HARDWOOD MULCH. MULCH TO BE FREE OF DELETERIOUS MATERIAL AND COLORED RED, OR APPROVED EQUAL. ROCK MULCH TO BE BUFF LIMESTONE, 1 1/2" TO 3" DIAMETER, AT MINIMUM 3" DEPTH, OR APPROVED EQUAL. ROCK MULCH TO BE ON COMMERCIAL GRADE FILTER FABRIC, BY TYPAR, OR APPROVED EQUAL WITH NO EXPOSURE. MULCH AND FABRIC TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. MULCH TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
18. EDGING TO BE COMMERCIAL GRADE VALLEY-VIEW BLACK DIAMOND (OR EQUAL) POLY EDGING OR SPADED EDGE, AS INDICATED. POLY EDGING SHALL BE PLACED WITH SMOOTH CURVES AND STAKED WITH METAL SPIKES NO GREATER THAN 4 FOOT ON CENTER WITH BASE OF TOP BEAD AT GRADE, FOR MOWERS TO CUT ABOVE WITHOUT DAMAGE. UTILIZE CURBS AND SIDEWALKS FOR EDGING WHERE POSSIBLE. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. INDIVIDUAL TREE, SHRUB, OR RAIN-GARDEN BEDS TO BE SPADED EDGE, UNLESS NOTED OTHERWISE. EDGING TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
19. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. PARKING LOT ISLANDS TO BE SODDED WITH SHREDDED HARDWOOD MULCH AROUND ALL TREES AND SHRUBS. SOD TO BE STANDARD MINNESOTA GROWN AND HARDY BLUEGRASS MIX, FREE OF LAWN WEEDS. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE DRAINAGE. SLOPES OF 3:1 OR GREATER SHALL BE STAKED. SEED AS SPECIFIED AND PER MN/DOT SPECIFICATIONS. IF NOT INDICATED ON LANDSCAPE PLAN, SEE EROSION CONTROL PLAN.
20. PROVIDE IRRIGATION TO ALL PLANTED AREAS ON SITE. IRRIGATION SYSTEM TO BE DESIGN/BUILD BY LANDSCAPE CONTRACTOR. LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. CONTRACTOR TO PROVIDE OPERATION MANUALS, AS-BUILT PLANS, AND NORMAL PROGRAMMING. SYSTEM SHALL BE WINTERIZED AND HAVE SPRING STARTUP DURING FIRST YEAR OF OPERATION. SYSTEM SHALL HAVE ONE-YEAR WARRANTY ON ALL PARTS AND LABOR. ALL INFORMATION ABOUT INSTALLATION AND SCHEDULING CAN BE OBTAINED FROM THE GENERAL CONTRACTOR.
21. CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
22. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.
23. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
24. RAIN GARDEN NOTE: PROVIDE AND INSTALL EROSION CONTROL BLANKET AT RAIN GARDEN AREA SIDE SLOPES AFTER ALL PLANTING HAVE BEEN INSTALLED. BLANKET TO BE ONE SEASON GEOJUTE, MN/DOT CATEGORY 2 (STRAW 1S, WOOD FIBER 1S), OR APPROVED EQUAL. BLANKET TO BE OVERLAPPED BY 4" AND ANCHORED BY SOD STAPLES. PLACE BLANKET PERPENDICULAR TO THE SLOPE. TRENCH IN EDGES OF BLANKET AREA TO PREVENT UNDER MINING. PROVIDE SILT FENCE AT TOP OF SLOPE AS NEEDED. SHREDDED HARDWOOD MULCH TO MATCH OTHER PROJECT PLANTING MULCH. PLACE 4" DEPTH OF MULCH AT ALL PLANTING AND EROSION CONTROL BLANKET AREA (NO FILTER FABRIC). SEE RAIN GARDEN DETAIL FOR FURTHER INFORMATION. RAIN GARDEN TO PROVIDE PROPER INFILTRATION AND DRAINAGE REQUIREMENTS PER ENGINEERS APPROVAL.

PLANTING NOTES



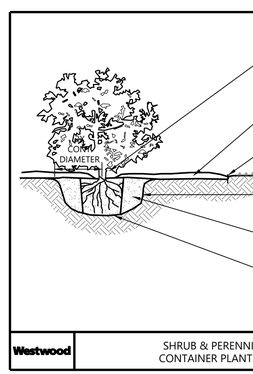
N.T.S.

Westwood	DECIDUOUS TREE PLANTING	LAST REVISED: 10/19/18
		LA28



N.T.S.

Westwood	EVERGREEN TREE PLANTING	LAST REVISED: 10/19/18
		LA29



N.T.S.

Westwood	SHRUB & PERENNIAL CONTAINER PLANTING	LAST REVISED: 10/23/18
		LA27-C

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OAK CREEK

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HORIZONTAL SCALE: ##########
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INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
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PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

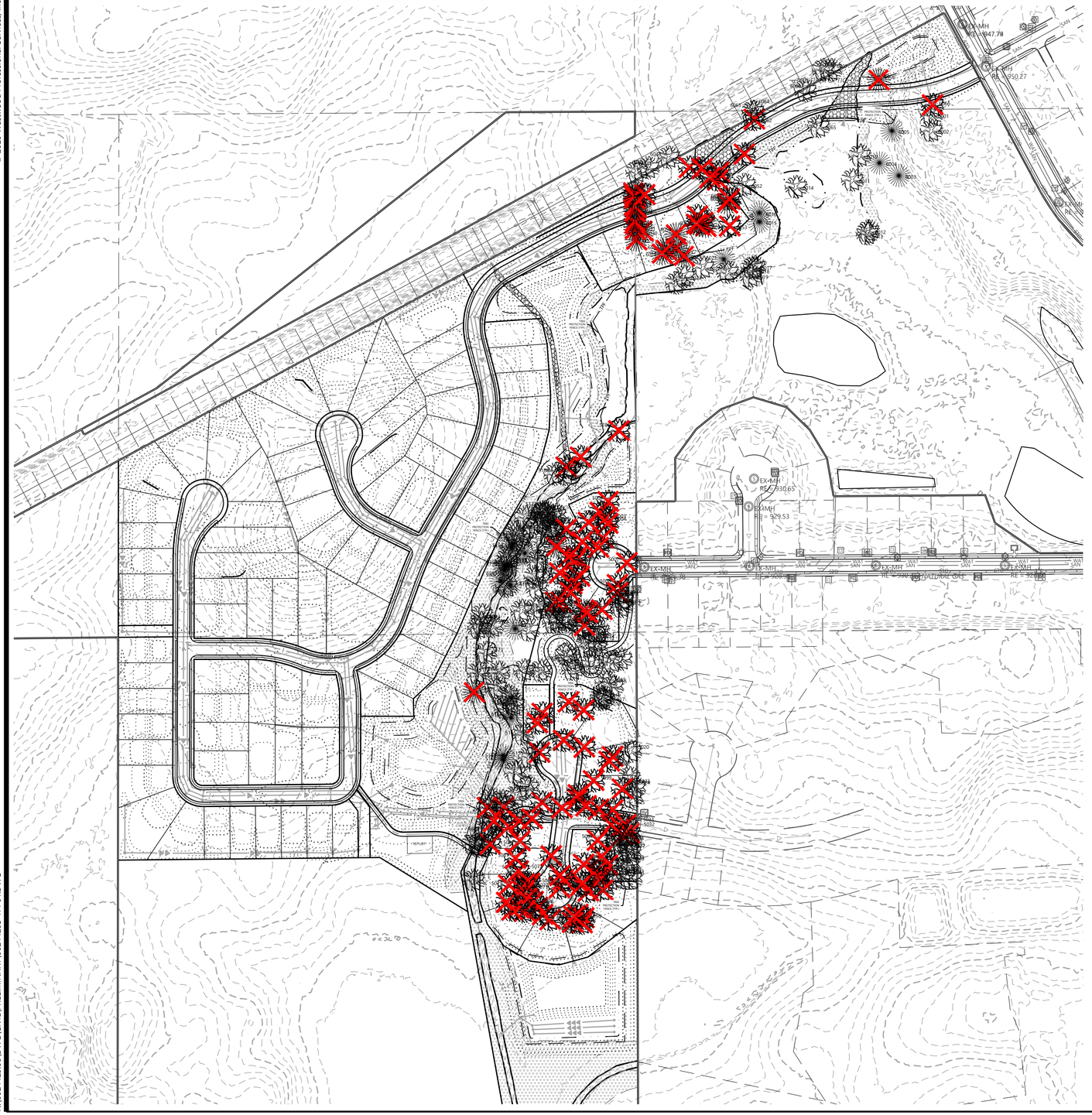
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PRELIMINARY LANDSCAPE PLAN, NOTES & DETAILS

PROJECT NUMBER: 0024429.00

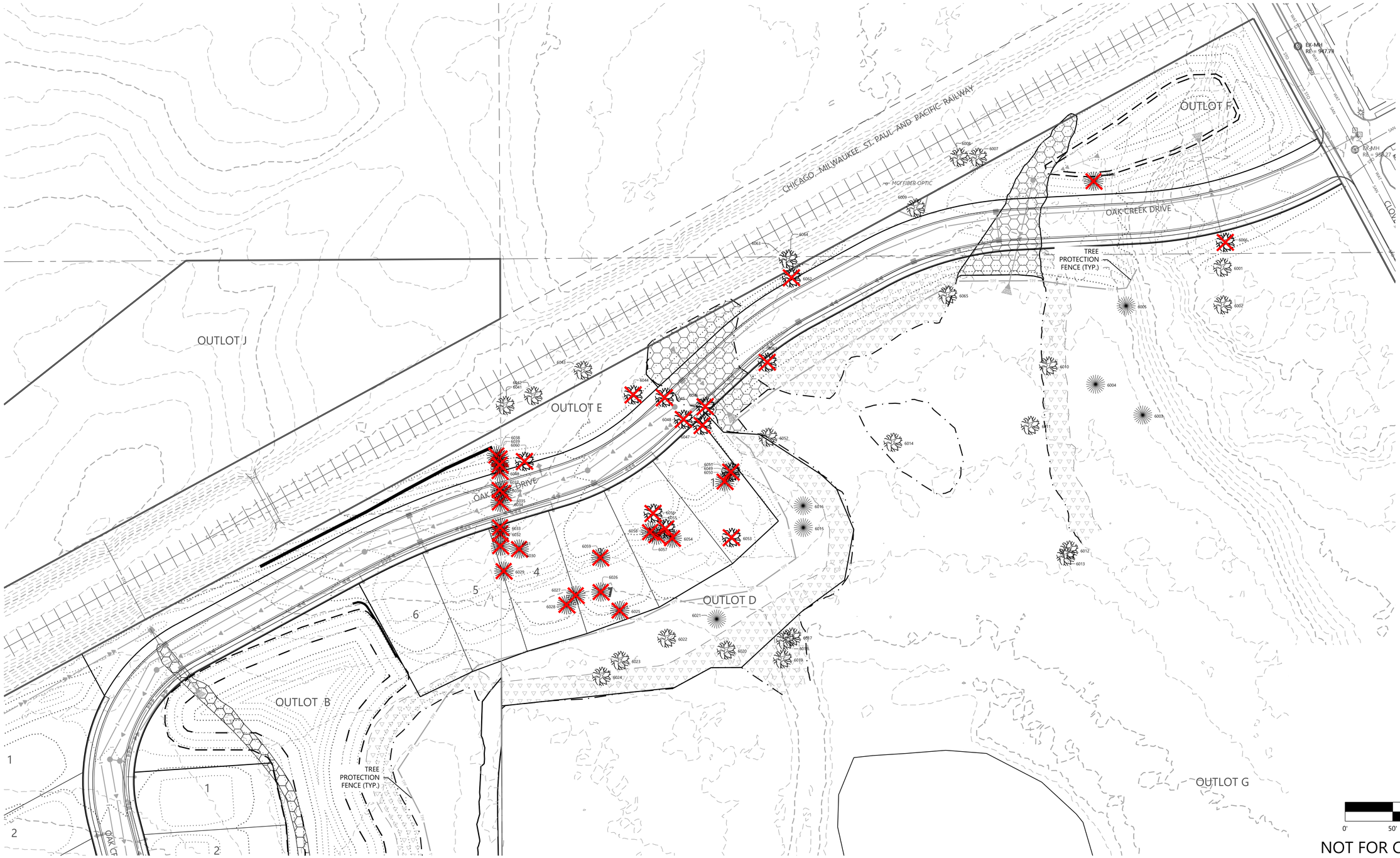
SHEET NUMBER: 22 OF 27
DATE: 03/25/22

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SAN
STORM
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TEMPORARY CONSTRUCTION EASEMENT
PROPOSED 6" WATER MAIN
PROPOSED 8" SANITARY SEWER
PROPOSED 12" STORM SEWER
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PROPOSED 5022" STORM SEWER
PROPOSED 5028" STORM SEWER
PROPOSED 5034" STORM SEWER
PROPOSED 5040" STORM SEWER
PROPOSED 5046" STORM SEWER
PROPOSED 5052" STORM SEWER
PROPOSED 5058" STORM SEWER
PROPOSED 5064" STORM SEWER
PROPOSED 5070" STORM SEWER
PROPOSED 5076" STORM SEWER
PROPOSED 5082" STORM SEWER
PROPOSED 5088" STORM SEWER
PROPOSED 5094" STORM SEWER
PROPOSED 5100" STORM SEWER
PROPOSED 5106" STORM SEWER
PROPOSED 5112" STORM SEWER
PROPOSED 5118" STORM SEWER
PROPOSED 5124" STORM SEWER
PROPOSED 5130" STORM SEWER
PROPOSED 5136" STORM SEWER
PROPOSED 5142" STORM SEWER
PROPOSED 5148" STORM SEWER
PROPOSED 5154" STORM SEWER
PROPOSED 5160" STORM SEWER
PROPOSED 5166" STORM SEWER
PROPOSED 5172" STORM SEWER
PROPOSED 5178" STORM SEWER
PROPOSED 5184" STORM SEWER
PROPOSED 5190" STORM SEWER
PROPOSED 5196" STORM SEWER
PROPOSED 5202" STORM SEWER
PROPOSED 5208" STORM SEWER
PROPOSED 5214" STORM SEWER
PROPOSED 5220" STORM SEWER
PROPOSED 5226" STORM SEWER
PROPOSED 5232" STORM SEWER
PROPOSED 5238" STORM SEWER
PROPOSED 5244" STORM SEWER
PROPOSED 5250" STORM SEWER
PROPOSED 5256" STORM SEWER
PROPOSED 5262" STORM SEWER
PROPOSED 5268" STORM SEWER
PROPOSED 5274" STORM SEWER
PROPOSED 5280" STORM SEWER
PROPOSED 5286" STORM SEWER
PROPOSED 5292" STORM SEWER
PROPOSED 5298" STORM SEWER
PROPOSED 5304" ST

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OAK CREEK

DESIGNED:	CHF
CHECKED:	RMB
DRAWN:	CHF
HORIZONTAL SCALE:	50'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
4	.	.
5	.	.

PREPARED FOR:

DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA

NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

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TREE PRESERVATION PLAN

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 24 OF 27
DATE: 03/25/22

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OAK CREEK

DESIGNED: CHF
CHECKED: RMB
DRAWN: CHF
HORIZONTAL SCALE: 50.000005'
VERTICAL SCALE: 10' OR 5'

INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
2 ---- ----
3 . .
4 . .
5 . .

PREPARED FOR:

DR HORTON, INC. - MINNESOTA

20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

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NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

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TREE PRESERVATION PLAN

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 25 OF 27

DATE: 03/25/22

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OAK CREEK PASS
OAK CREEK DRIVE
OUTLOT A
OUTLOT B
OUTLOT L
OUTLOT M
OUTLOT O
SOPHIA DRIVE
OAK CREEK CIRCLES
TOT LOT
TREE PROTECTION FENCE (TYP.)
EX. MH
RE = 926.38

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S-TPP01.DWG

OAK CREEK

DESIGNED:	FDH II
CHECKED:	FDH II
DRAWN:	ACB
HORIZONTAL SCALE:	50'
VERTICAL SCALE:	10' OR 5'

INITIAL ISSUE: 03/01/2022
REVISIONS:

1	03/25/22	CITY REQUESTED UPDATES
2	----	----
3	.	.
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LAKEVILLE, MINNESOTA 55044

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NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

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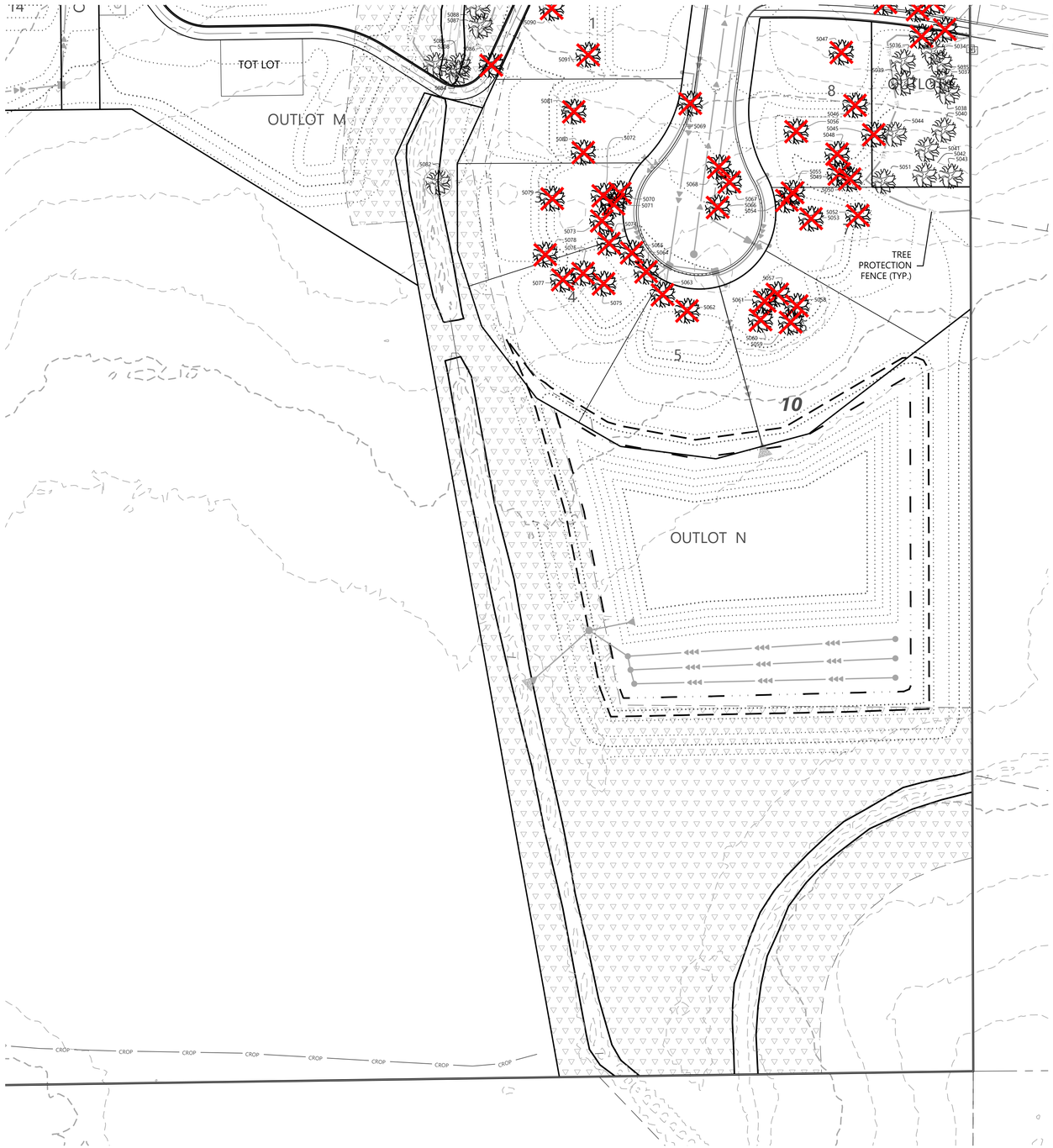
TREE PRESERVATION PLAN

PROJECT NUMBER: 0024429.00

SHEET NUMBER: 26 OF 27
DATE: 03/25/22

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TREE PRESERVATION DATA

TREE TAG	SPECIES	SIZE (DBH)	NOTES	STATUS
5001	Red Oak	37	BD-35%	Removed-Exempt-Unhealthy
5002	Bur Oak	43		Removed
5003	Bur Oak	24		Removed
5004	Bur Oak	24		Removed
5005	Bur Oak	29		Removed
5006	Bur Oak	23		Removed
5007	Ash	43	EAB	Removed-Exempt-Unhealthy
5008	Sugar Maple	38		Removed
5009	Red Oak	26		Removed
5010	Bur Oak	20	X	Saved
5011	Bur Oak	25		Saved
5012	Bur Oak	26		Saved
5013	Bur Oak	25		Saved
5014	Bur Oak	41		Saved
5015	Bur Oak	29		Saved
5016	Bur Oak	59		Saved
5017	American Elm	12		Saved
5018	American Elm	14		Saved
5019	Bur Oak	29		Saved
5020	Red Oak	39	BD-20%	Saved
5021	Bur Oak	13		Removed
5022	Bur Oak	28		Removed
5023	Bur Oak	31		Saved
5024	Bur Oak	28		Saved
5025	Red Oak	37		Saved
5026	Bur Oak	22		Removed
5027	Bur Oak	26		Removed
5028	Bur Oak	29		Removed
5029	Bur Oak	35		Removed
5030	Bur Oak	20		Removed
5031	Bur Oak	13		Removed
5032	Bur Oak	18		Removed
5033	Bur Oak	20		Removed
5034	Bur Oak	34		Saved
5035	Bur Oak	21		Saved
5036	Bur Oak	15		Saved
5037	Bur Oak	28		Saved
5038	Bur Oak	24		Saved
5039	Bur Oak	28	BD-10%	Saved
5040	Bur Oak	28		Saved
5041	Bur Oak	25		Saved
5042	Bur Oak	20		Saved
5043	Bur Oak	45		Saved
5044	Bur Oak	19		Saved
5045	Bur Oak	39		Removed
5046	Bur Oak	32		Removed
5047	Bur Oak	24		Removed
5048	Bur Oak	18		Removed
5049	Bur Oak	18		Removed
5050	Bur Oak	19		Removed
5051	Bur Oak	23		Saved
5052	Bur Oak	32		Removed
5053	Bur Oak	32		Removed
5054	Bur Oak	23		Removed
5055	American Elm	12		Removed
5056	Bur Oak	28		Removed
5057	Bur Oak	26		Removed
5058	Fruit Tree	19		Removed
5059	Bur Oak	31		Removed
5060	Bur Oak	19		Removed
5061	Bur Oak	19		Removed
5062	Basswood	18		Removed
5063	Bur Oak	30		Removed
5064	Bur Oak	27		Removed
5065	Bur Oak	17		Removed
5066	Bur Oak	34		Removed
5067	Bur Oak	20		Removed
5068	Bur Oak	25		Removed
5069	Basswood	34		Removed
5070	Bur Oak	25		Removed
5071	Bur Oak	17	BD-15%	Removed
5072	Bur Oak	16		Removed
5073	Bur Oak	24		Removed
5074	Bur Oak	16		Removed
5075	Bur Oak	16		Removed
5076	Bur Oak	30		Removed
5077	Bur Oak	26		Removed
5078	Basswood	35	X BD, Dead	Removed-Exempt-Unhealthy
5079	Bur Oak	26		Removed
5080	Bur Oak	24		Removed
5081	Bur Oak	30		Removed
5082	Siberian Elm	17	Invasive	Saved-Exempt-Invasive
5084	Siberian Elm	12	Invasive	Saved-Exempt-Invasive
5085	Bur Oak	29		Saved
5086	Bur Oak	19		Removed
5087	Basswood	29	BD, Dead	Saved-Exempt-Unhealthy
5088	Bur Oak	25		Saved
5089	Bur Oak	24		Removed
5090	Bur Oak	28		Removed
5091	Bur Oak	28		Removed
5092	Bur Oak	34		Removed
5093	Bur Oak	22		Removed
5094	Bur Oak	22		Removed
5095	Bur Oak	32		Removed
5096	Bur Oak	23		Removed
5097	Bur Oak	30		Removed
5098	Bur Oak	29		Removed
5099	Bur Oak	24		Removed
5100	Bur Oak	29		Removed
5101	Bur Oak	28		Removed
5102	Basswood	41	PD, Dead	Removed-Exempt-Unhealthy
5103	Bur Oak	35		Removed
5104	Bur Oak	21		Removed
5105	Red Oak	36	BD-40%	Removed-Exempt-Unhealthy
5106	Bur Oak	28		Saved
5107	Red Oak	24		Saved
5108	Bur Oak	28		Saved
5109	Red Oak	42	BD-60%	Saved-Exempt-Unhealthy
5110	Bur Oak	24		Saved
5111	Bur Oak	22		Saved
5112	Bur Oak	18		Saved
5113	Bur Oak	24		Saved
5114	Bur Oak	20		Saved
5115	Red Oak	39	BD, Dead	Removed-Exempt-Unhealthy
5116	Bur Oak	18		Saved
5117	Bur Oak	22		Removed
5118	Eastern Red Cedar	7		Removed
5119	Bur Oak	27		Removed
5120	Bur Oak	26		Removed
5121	Bur Oak	24		Saved
5122	Bur Oak	19		Saved
5123	Bur Oak	16		Saved
5124	Bur Oak	17		Saved
5125	Bur Oak	21		Saved
5126	Bur Oak	13		Saved
5127	Bur Oak	16		Saved
5128	Bur Oak	20		Saved
5129	Bur Oak	18		Saved
5130	Bur Oak	27		Removed
5131	Bur Oak	12		Saved
5132	Bur Oak	26		Saved
5133	Eastern Red Cedar	9		Removed
5134	Bur Oak	17		Saved
5135	Bur Oak	23		Removed
5136	Bur Oak	24		Removed
5137	Bur Oak	16		Removed
5138	Bur Oak	24		Removed
5139	Bur Oak	26		Removed
5140	Bur Oak	29		Removed
5141	Bur Oak	24	X	Removed
5142	Bur Oak	38		Removed
5143	Bur Oak	22		Removed
5144	Bur Oak	24		Removed
5145	Bur Oak	20		Removed
5146	Bur Oak	19		Saved
5147	Bur Oak	24		Saved
5148	Bur Oak	29		Saved
5149	Bur Oak	28	PD	Saved-Exempt-Unhealthy
5150	Bur Oak	19		Saved
5151	Bur Oak	18		Saved
5152	Bur Oak	28		Saved
5153	Red Oak	70	BD-35%	Saved-Exempt-Unhealthy
5154	Bur Oak	35		Removed
5155	Bur Oak	34		Saved
5156	Black Willow	28	BD-30%	Saved-Exempt-Unhealthy
5157	Bur Oak	37		Saved
5158	Bur Oak	39		Saved
5159	Basswood	39		Removed
5160	Bur Oak	42		Saved
5161	American Elm	12		Removed
5162	Bur Oak	32		Saved
5163	Eastern Red Cedar	7		Saved
5164	Eastern Red Cedar	7		Saved
5165	Ash	12	EAB	Saved-Exempt-Unhealthy
5166	Eastern Red Cedar	9	X	Saved
5167	Siberian Elm	12	Invasive	Saved-Exempt-Invasive
5168	Red Oak	32		Saved
5169	Eastern Red Cedar	6		Saved
5170	American Elm	12		Saved
5171	Bur Oak	30		Saved
5172	Basswood	29		Saved
5173	Siberian Elm	13	Invasive	Saved-Exempt-Invasive
5174	Sugar Maple	26		Saved
5175	Eastern Red Cedar	10		Saved
5176	Bur Oak	50	BD-10%	Saved
5177	Ash	30	BD-65% EAB	Saved-Exempt-Unhealthy
5178	Bur Oak	32		Saved
5179	Ash	13	EAB	Saved-Exempt-Unhealthy
5180	Eastern Red Cedar	5		Saved
5181	Bur Oak	30		Saved
5182	Bur Oak	40		Saved
5183	Bur Oak	34		Saved
5184	Eastern Red Cedar	7		Saved
5185	American Elm	12	BD, Dead	Removed-Exempt-Unhealthy
5186	American Elm	12	BD, Dead	Removed-Exempt-Unhealthy
5187	Boxelder	14		Removed
5188	American Elm	14		Saved
5189	Ash	37	EAB	Saved-Exempt-Unhealthy
5190	Basswood	30	X	Saved
5191	American Elm	20		Saved
5192	Bur Oak	74		Saved
5193	Basswood	22		Saved
5194	Eastern Red Cedar	13		Saved
5195	Eastern Red Cedar	6		Saved
5196	Basswood	30		Saved
5197	Basswood	36	X	Saved
5198	Eastern Red Cedar	7		Saved
5199	Eastern Red Cedar	6		Saved
5200	Eastern Red Cedar	9		Saved
5201	Eastern Red Cedar	11		Saved
5202	Eastern Red Cedar	21		Saved
5203	Basswood	37	X	Saved
5204	Basswood	21		Saved
5205	American Elm	12		Saved
5206	Red Oak	29		Saved
5207	Eastern Red Cedar	15		Removed
5208	Bur Oak	34		Saved
6001	Cottonwood	13		Offsite
6002	Cottonwood	12		Offsite
6003	Eastern Red Cedar	2		Offsite
6004	Eastern Red Cedar	2		Offsite
6005	Eastern Red Cedar	2		Offsite
6006	Eastern Red Cedar	1		Removed
6007	Boxelder	18		Offsite
6008	Boxelder	22		Offsite
6009	Boxelder	12	x	Saved
6010	American Elm	14		Offsite
6011	Ash	13	EAB	Offsite
6012	Black Willow	23	x	Offsite
6013	Black Willow	54		Offsite
6014	American Elm	12		Offsite
6015	Eastern Red Cedar	2		Saved
6016	Eastern Red Cedar	3		Saved
6017	Cottonwood	14		Offsite
6018	Cottonwood	15		Offsite
6019	Cottonwood	14		Offsite
6020	Boxelder	12		Saved
6021	Eastern Red Cedar	2		Saved
6022	Ash	12	EAB	Saved-Exempt-Unhealthy
6023	Ash	12	EAB	Saved-Exempt-Unhealthy
6024	Ash	13	EAB	Saved-Exempt-Unhealthy
6025	Eastern Red Cedar	6		Removed
6026	Eastern Red Cedar	5		Removed
6027	Eastern Red Cedar	4		Removed
6028	Eastern Red Cedar	1		Removed
6029	Eastern Red Cedar	8		Removed
6030	Eastern Red Cedar	2		Removed
6031	Eastern Red Cedar	5		Removed
6032	Eastern Red Cedar	7		Removed
6033	Eastern Red Cedar	3		Removed
6034	Eastern Red Cedar	2		Removed
6035	Eastern Red Cedar	7		Removed
6036	Eastern Red Cedar	7		Removed
6037	Eastern Red Cedar	10		Removed
6038	Eastern Red Cedar	3		Removed
6039	Eastern Red Cedar	3		Removed
6040	Eastern Red Cedar	2		Removed
6041	Boxelder	14	x	Offsite
6042	Boxelder	14		Offsite
6043	Boxelder	12		Offsite
6044	American Elm	12		Removed
6045	Ash	12	EAB	Removed-Exempt-Unhealthy
6046	Ash	15	EAB	Removed-Exempt-Unhealthy
6047	Ash	13	EAB	Removed-Exempt-Unhealthy
6048	Ash	15	EAB	Removed-Exempt-Unhealthy
6049	Ash	14	EAB	Removed-Exempt-Unhealthy
6050	Eastern Red Cedar	1		Removed
6051	Eastern Red Cedar	1		Removed
6052	Ash	15	EAB	Offsite
6053	Ash	12	EAB	Removed-Exempt-Unhealthy
6054	Eastern Red Cedar	4		Removed
6055	American Elm	4		Removed
6056	Ash	12	EAB	Removed-Exempt-Unhealthy
6057	Eastern Red Cedar	3		Removed
6058	Eastern Red Cedar	2		Removed
6059	Eastern Red Cedar	1		Removed
6060	Black Cherry	12		Removed
6061	Boxelder	12		Removed
6062	Ash	13	EAB	Removed-Exempt-Unhealthy
6063	American Elm	16		Offsite
6064	Boxelder	18	x	Offsite
6065	Ash	14	pd 40% trunk	Offsite
6066	Cottonwood	12		Removed

1" = 50'
0' 50' 100' 150'

NOT FOR CONSTRUCTION

N:\0024429.00\DWG\CIVIL\PRELIMINARY\0024429S_TPP01.DWG

OAK CREEK

DESIGNED: FDH II
CHECKED: FDH II
DRAWN: ACB
HORIZONTAL SCALE: ##########
VERTICAL SCALE: ### OR ###

INITIAL ISSUE: 03/01/2022
REVISIONS:
1 03/25/22 CITY REQUESTED UPDATES
2 ---- ----
3 . .
4 . .
5 . .

PREPARED FOR:
DR HORTON, INC. - MINNESOTA
20860 KENBRIDGE COURT, SUITE 100
LAKEVILLE, MINNESOTA 55044

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA
NICHOLAS T. MEYER
DATE: 03/25/22 LICENSE NO. 53774

OAK CREEK
CHASKA, MN

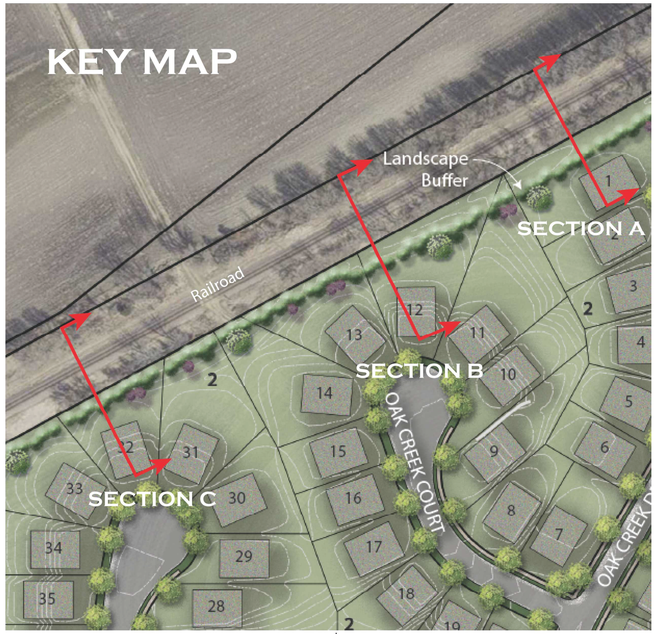
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TREE PRESERVATION PLAN & DATA

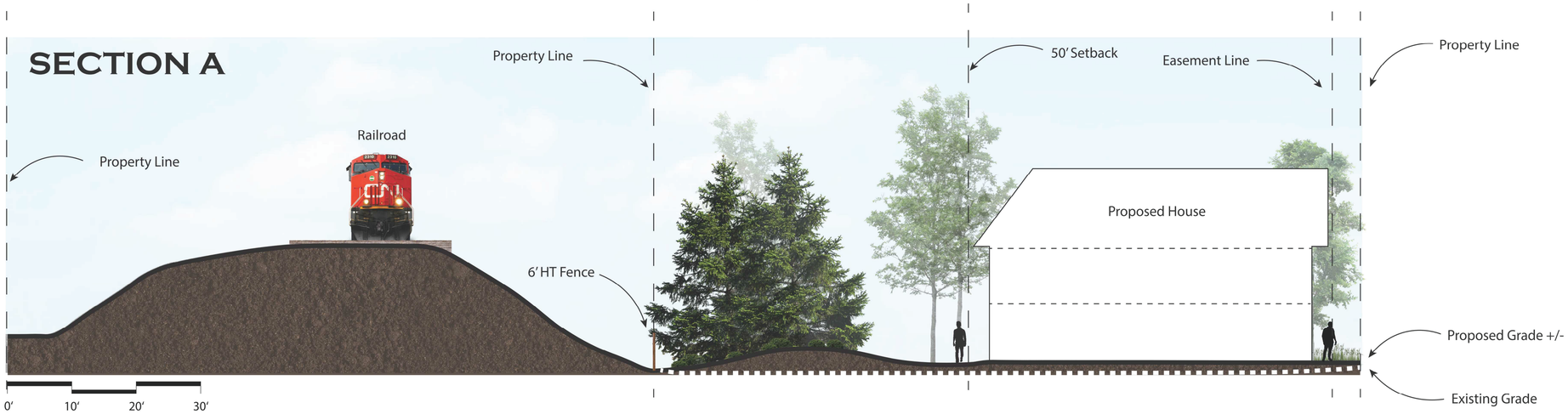
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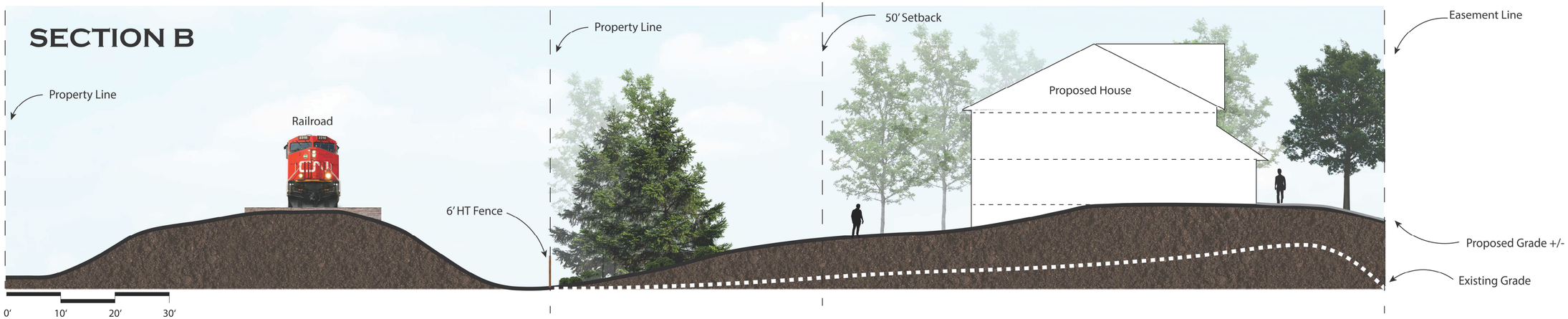
SHEET NUMBER: 27 OF 27
DATE: 03/25/22

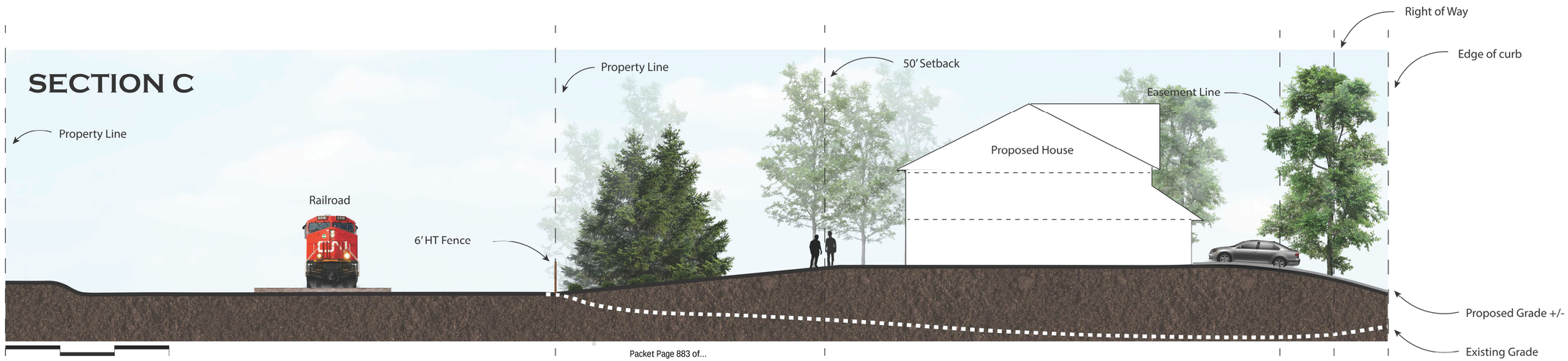
ILLUSTRATIVE CROSS SECTIONS
OAK CREEK-CHASKA, MN



NO SCALE







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Westwood Professional Services, Inc.

03-14-2022

0024429

March 29, 2022

The Jonathan Association
c/o First Service Residential
111000 Bavaria Rd
Chaska, MN 55318

Sent Via Email

Dear Board of Directors:

Thank you for taking the time to meet with our group last week. This letter serves as a summary of our meeting and the formal request of Chaska Investments and D.R. Horton as it relates to Outlot A, Clover Preserve 2nd Addition ("**Outlot A**") and the proposed Clover Field Apartments and Oak Creek development. We understand that the next Board meeting is set for April 18th. Given our approval and construction timeline, we respectfully request the Board meet earlier in April to consider this request. Our team can be available to attend and answer any questions.

SUMMARY

Outlot A is subject to Clover Preserve Declaration of Development Standards, Covenants, Conditions and Restrictions dated September 12, 2001 ("**Clover Preserve Declaration**"). Pursuant to Article II, Section 2.02, the Jonathan Association shall provide written consent of any lot subdivision or split. D.R. Horton has a purchase contract for a portion of Outlot A for the proposed Oak Creek access road and 4 residential lots (shown as Parcel A of attached Lot Split exhibit). Chaska Investments has a contracted buyer for a portion of the remaining site for the proposed Clover Field Apartments (shown as Parcel B of attached Lot Split exhibit).

Both the apartment site and Oak Creek are planned to begin development Spring 2022.

As discussed, the demographics for the apartment site include empty nesters and professionals with very few children. The rental market is competitive, which makes it challenging to justify additional fees for amenities that will get little use from tenants. The apartment site will have on site amenities, including a pool, party room, exercise facility and outdoor barbecue area.

D.R. Horton, Inc.-Minnesota
20860 Kenbridge Court, Suite 100
Lakeville, MN 55044
www.drhorton.com

REQUESTS

We request and propose the following:

- Chaska Investments requests written consent from The Jonathan Association for the lot split and re-platting of Outlot A to facilitate the closing to D.R. Horton, as well as the development of both Oak Creek and the apartments.

- Chaska Investments requests The Jonathan Association release the apartments from the Clover Preserve Declaration. Enclosed is a proposed draft of Release of Land from Declaration for your review.

- D.R. Horton will agree to add the Oak Creek neighborhood into The Jonathan Association with the below conditions:
  - Receipt of The Jonathan Association's legal opinion on the ability to annex real estate without consent of 2/3 of all classes of members. The legal opinion is to be reviewed and agreed to by D.R. Horton legal counsel.

  - No requirement of architectural approval of The Jonathan Association for the initial construction of homes. The plans are as approved by the City of Chaska. Any subsequent architectural changes would be reviewed by Jonathan once D.R. Horton transfers ownership to an end buyer.

  - The Jonathan Association will agree to accept all common elements that will be constructed as part of the Oak Creek development.

  - D.R. Horton shall not be responsible for annual assessments. Assessments begin once the home is closed with the end buyer.

We appreciate your time and consideration with this matter and look forward to an outcome that will work for all parties. Please contact one of the below with any questions or need for additional information. Thank you.

CHASKA INVESTMENTS
Mike Benson
mbenson@wpcrealestate.com
612.801.7281

D.R. HORTON
Mike Suel
msuel@drhorton.com
952.985.7823

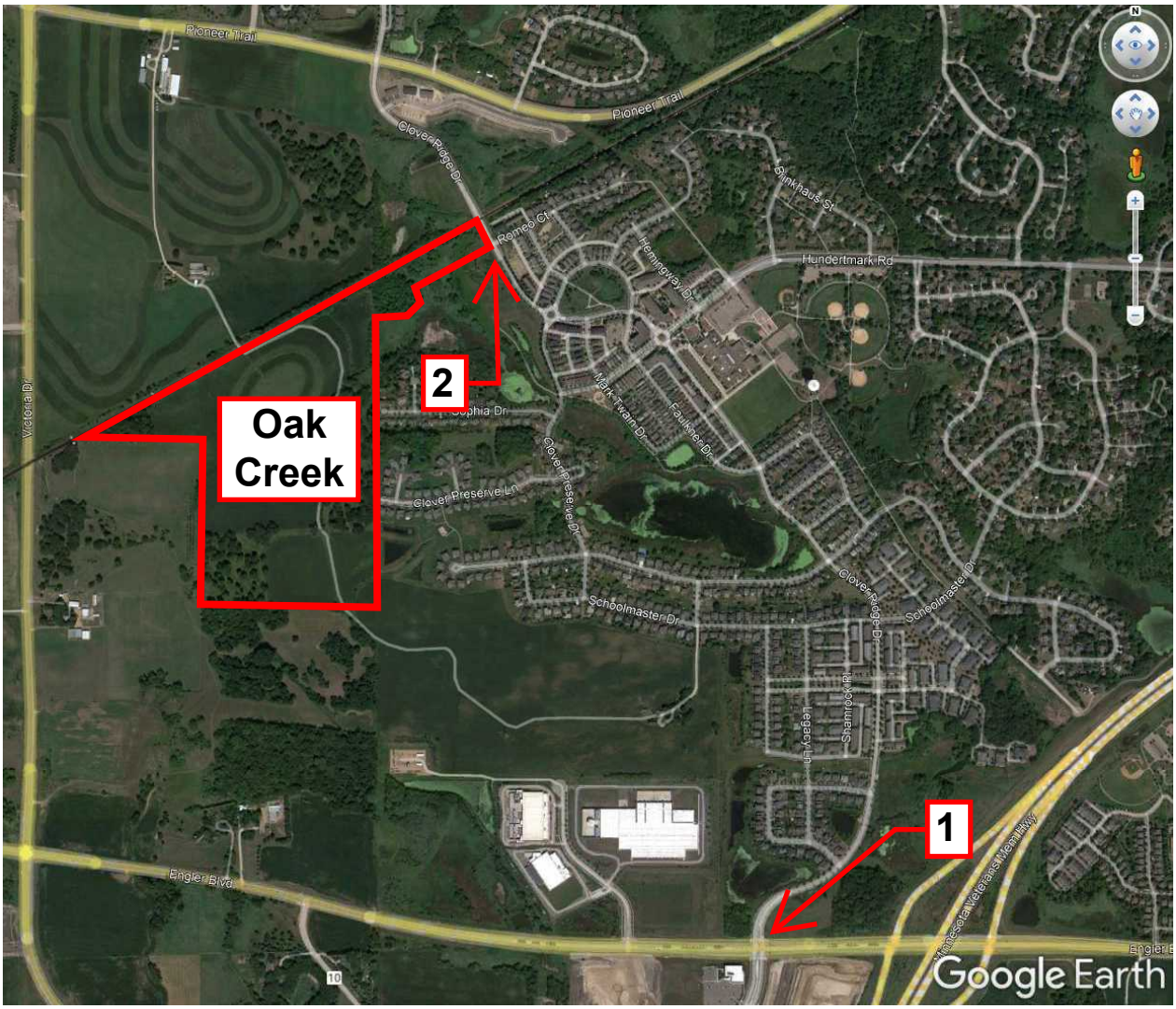
Deb Ridgeway
dridgeway@drhorton.com
952.985.7864

ENCLOSURES

Oak Creek Construction Traffic Plan

03/01/2022

Not to scale



1 - Construction Traffic Sign on northbound Clover Ridge Drive at Engler Blvd: "No Oak Creek Construction Access. Use Pioneer Trail"

2 - Construction Traffic Sign on southbound Clover Ridge Dr. at Romeo Ct: "No Oak Creek Construction Traffic Beyond This Point"

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America's Builder

THE WHITNEY



AMERICAN CLASSIC A



PRAIRIE D



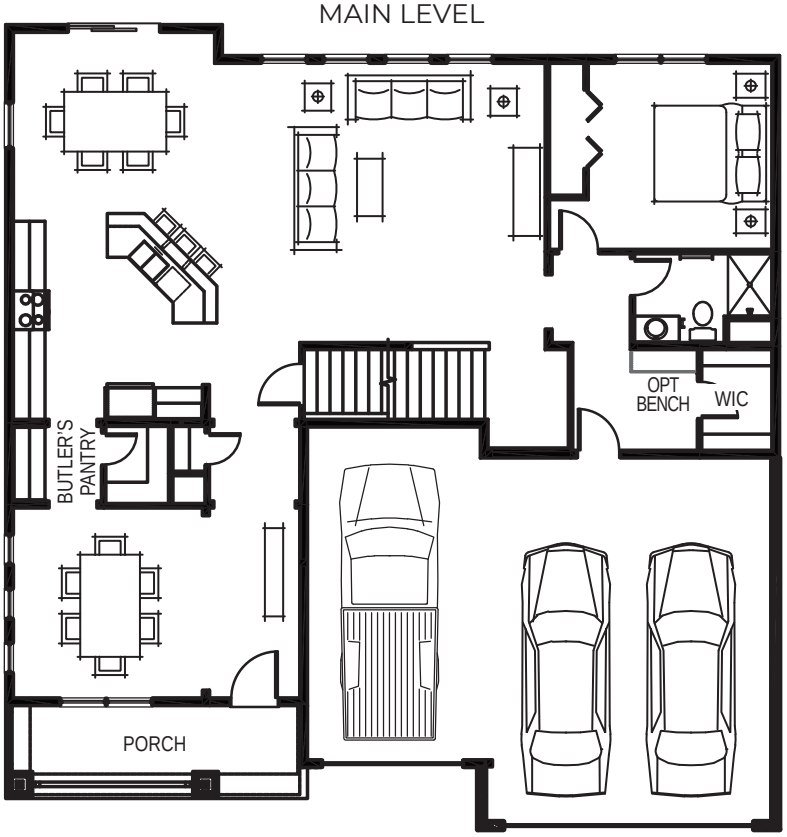
NORTHERN CRAFTSMAN B

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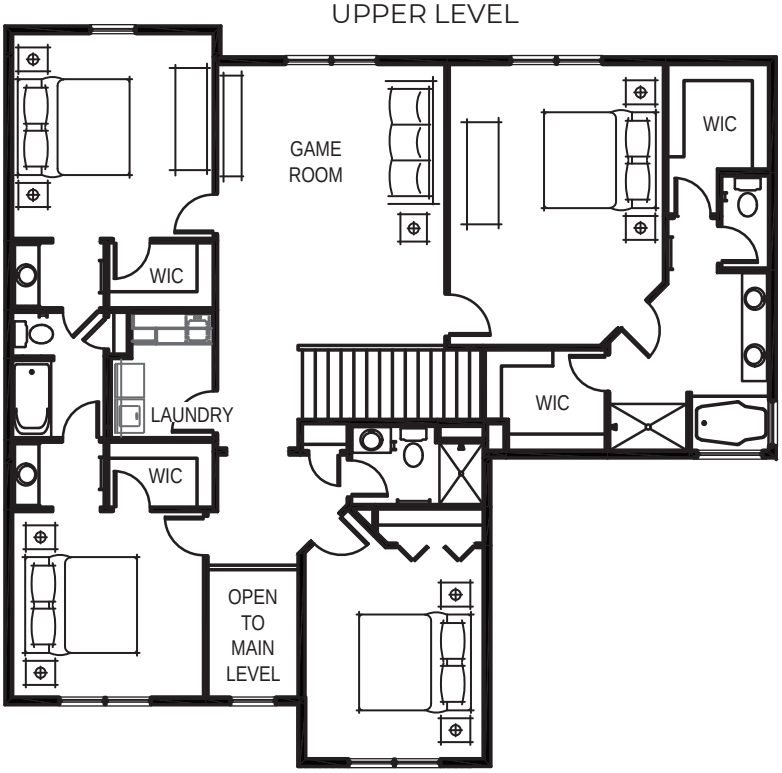
THE WHITNEY

3,400 SQUARE FEET

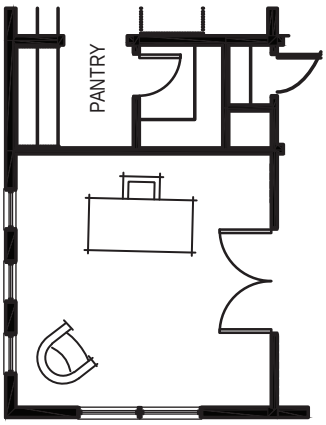
MAIN LEVEL



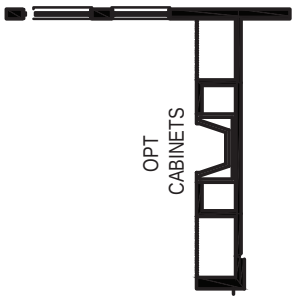
UPPER LEVEL



OPT STUDY



OPT GAS FIREPLACE



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THE HARRISON


AMERICAN CLASSIC A


HEARTLAND COTTAGE C



NORTHERN CRAFTSMAN B

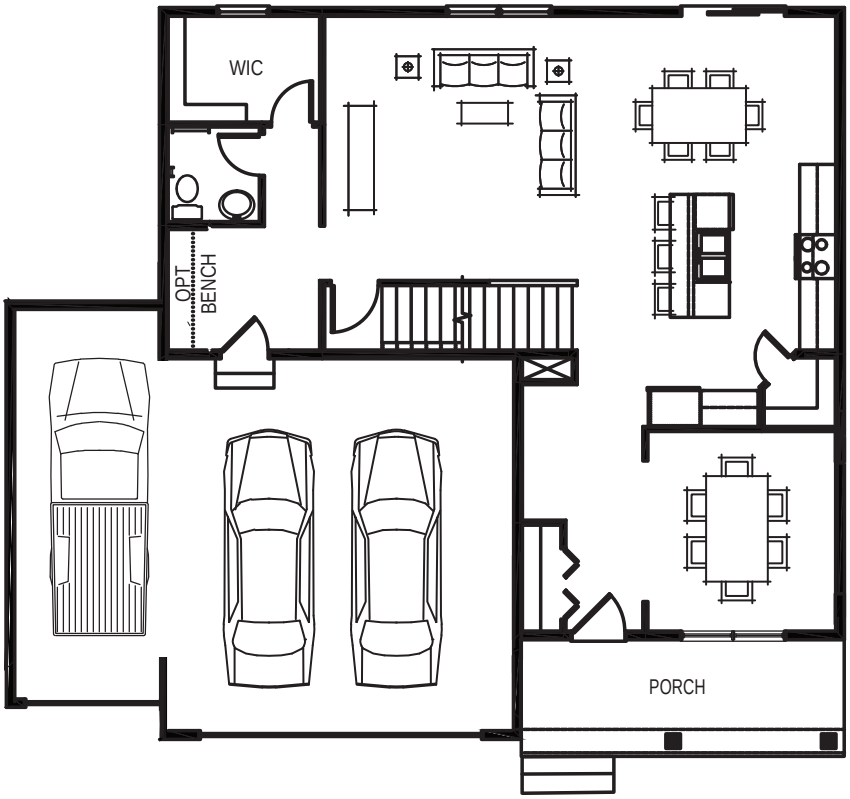
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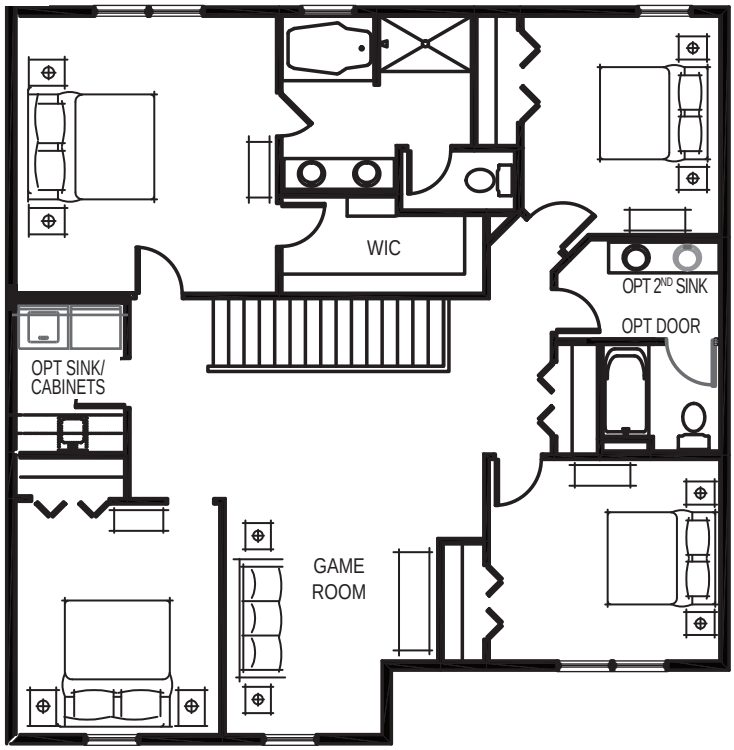
THE HARRISON

2,522 SQUARE FEET

MAIN LEVEL



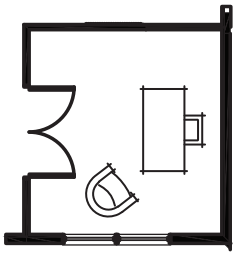
UPPER LEVEL



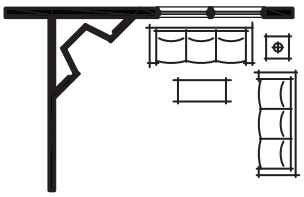
OPT BEDROOM PLAN W/ FULL BATH



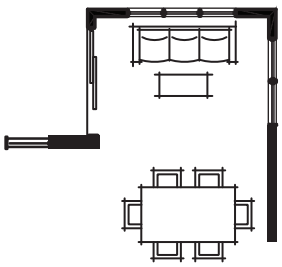
OPT STUDY



OPT GAS FIREPLACE



OPT SUNROOM



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THE JORDAN


AMERICAN CLASSIC A


HEARTLAND COTTAGE C


NORTHERN CRAFTSMAN B

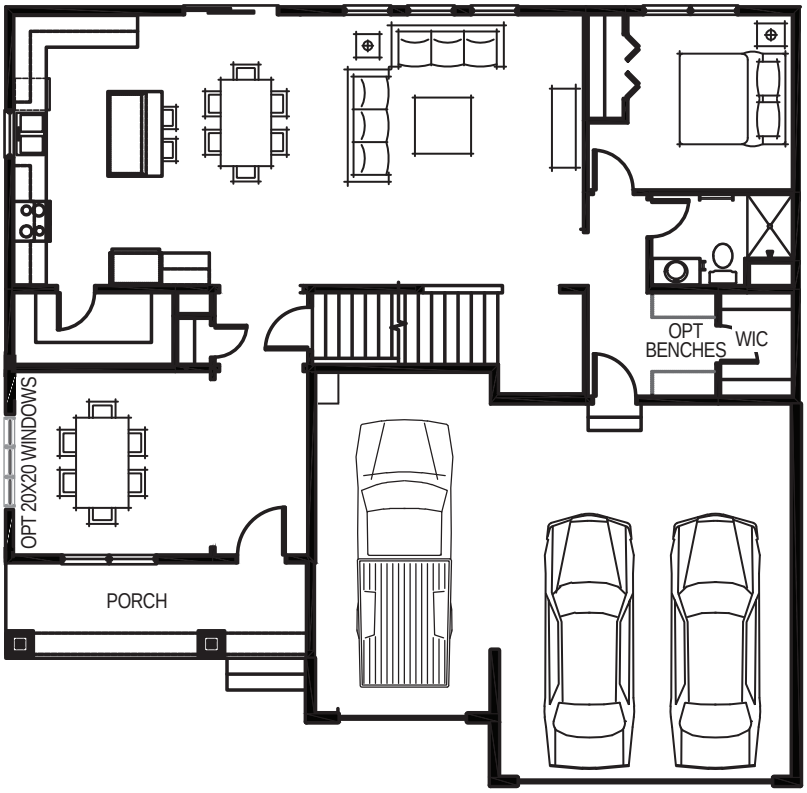

PRAIRIE D

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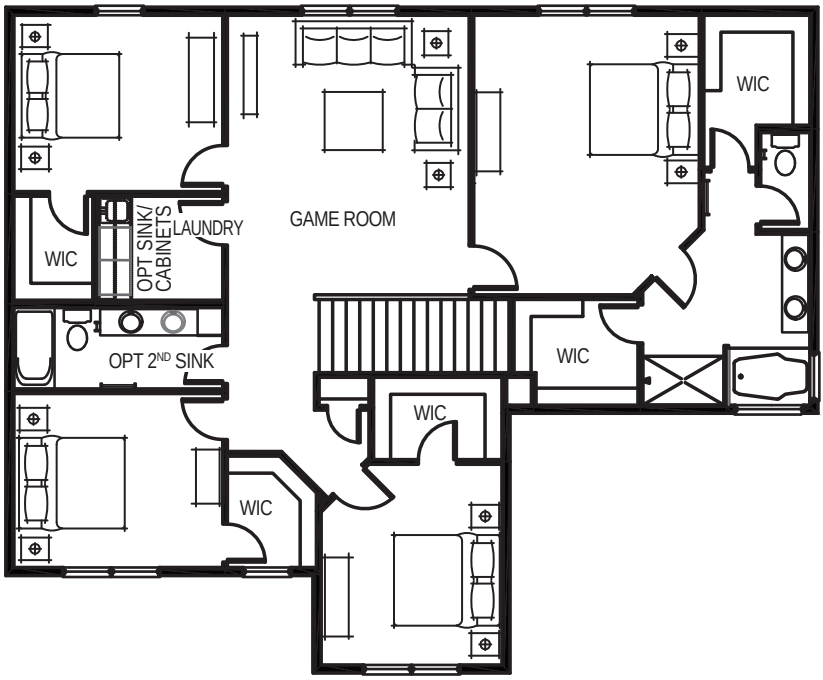
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THE JORDAN
3,003 SQUARE FEET

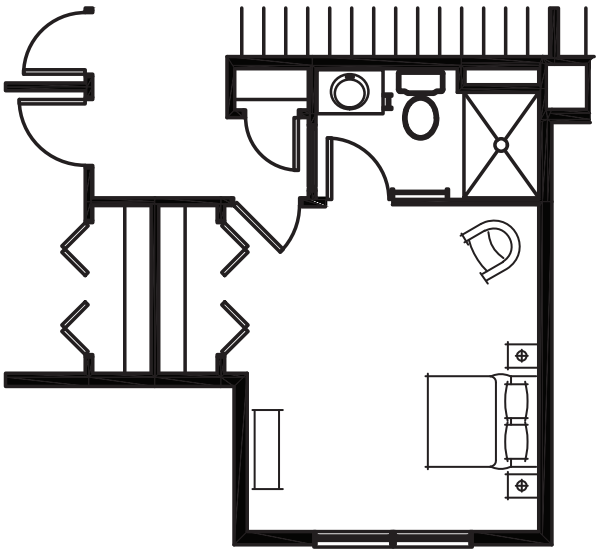
MAIN LEVEL



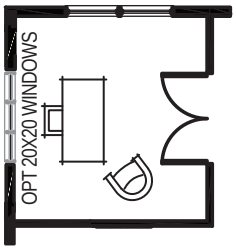
UPPER LEVEL



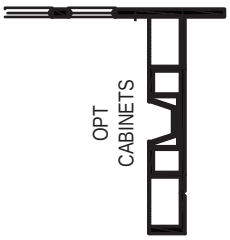
OPT 3RD BATH



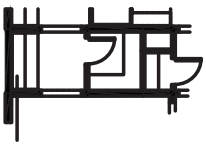
OPT STUDY



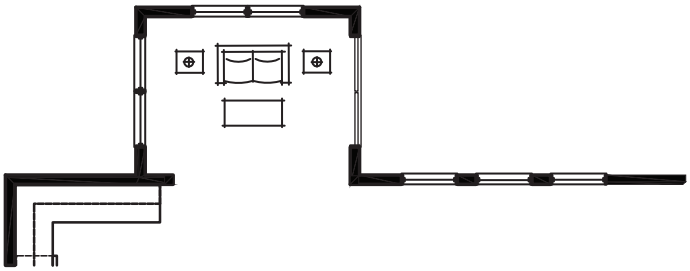
OPT GAS FIREPLACE



OPT BUTLER'S PANTRY



OPT SUNROOM



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REALTOR® MLS EQUAL HOUSING OPPORTUNITY

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THE REDWOOD



AMERICAN CLASSIC A



HEARTLAND COTTAGE C



NORTHERN CRAFTSMAN B

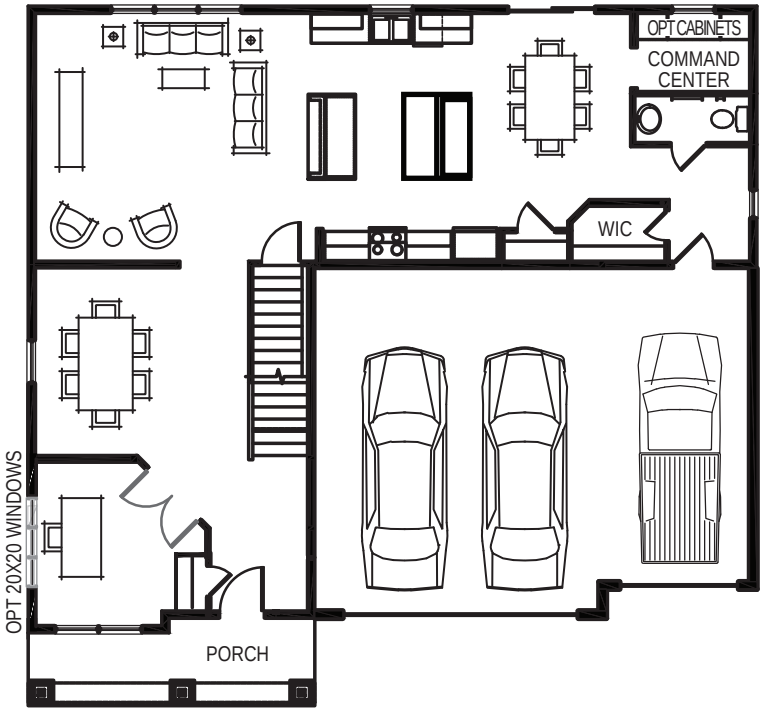
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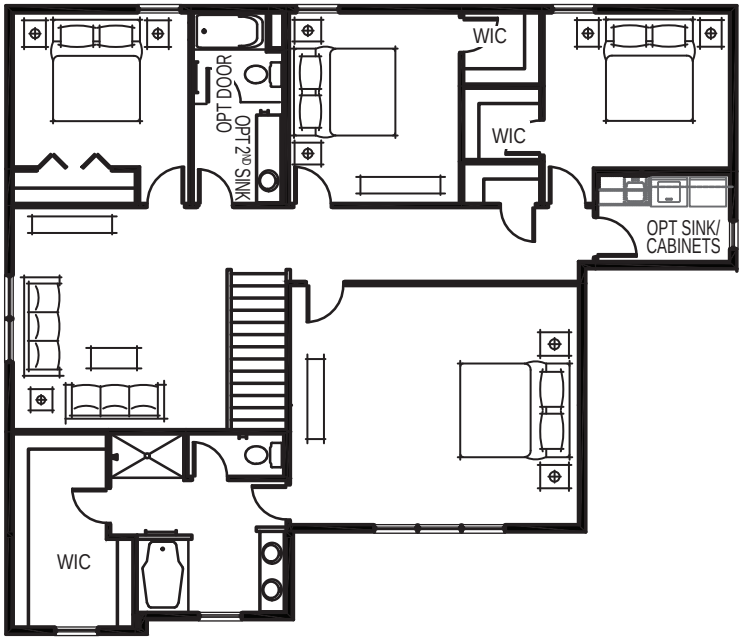
THE REDWOOD

3,084 SQUARE FEET

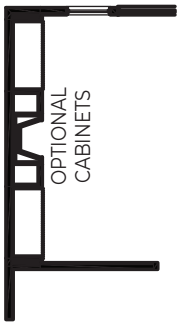
MAIN LEVEL



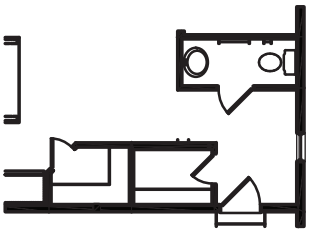
UPPER LEVEL



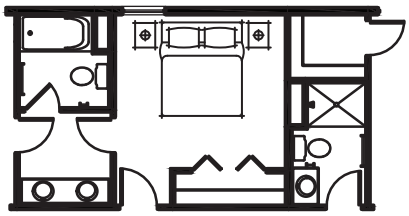
OPT GAS FIREPLACE



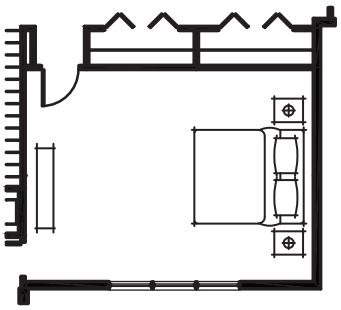
OPT WALK-IN PANTRY



OPT JACK & JILL PLUS HALL BATH



OPT LINEN CLOSETS



OPT SEE-THROUGH GAS FIREPLACE



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REALTOR® MLS EQUAL HOUSING OPPORTUNITY

D·R·HORTON
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THE ADAMS


AMERICAN CLASSIC A


HEARTLAND COTTAGE C


NORTHERN CRAFTSMAN B


PRAIRIE D

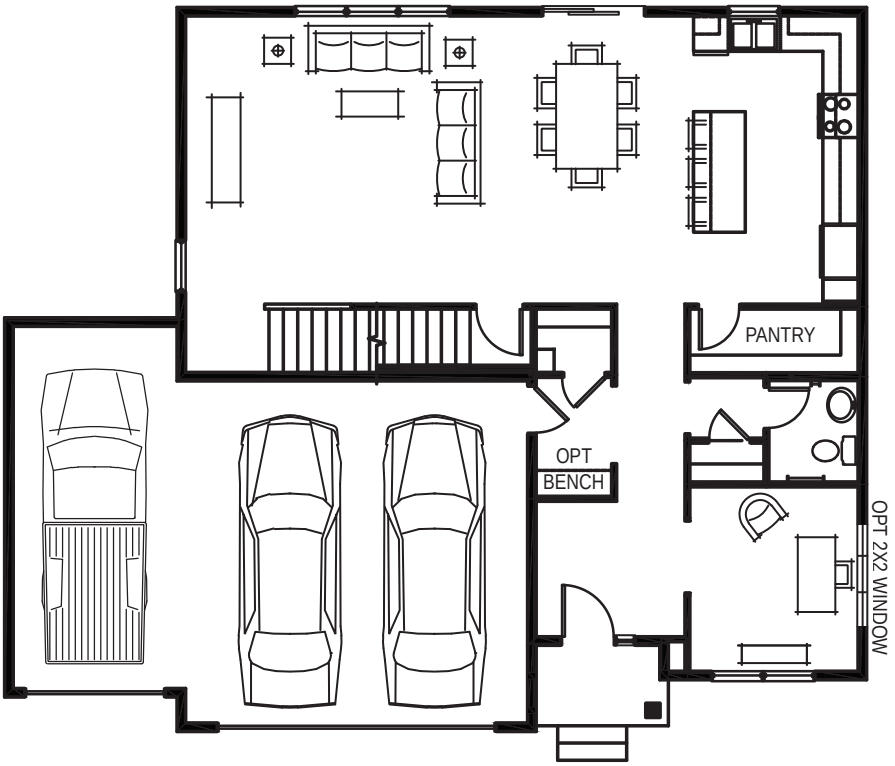
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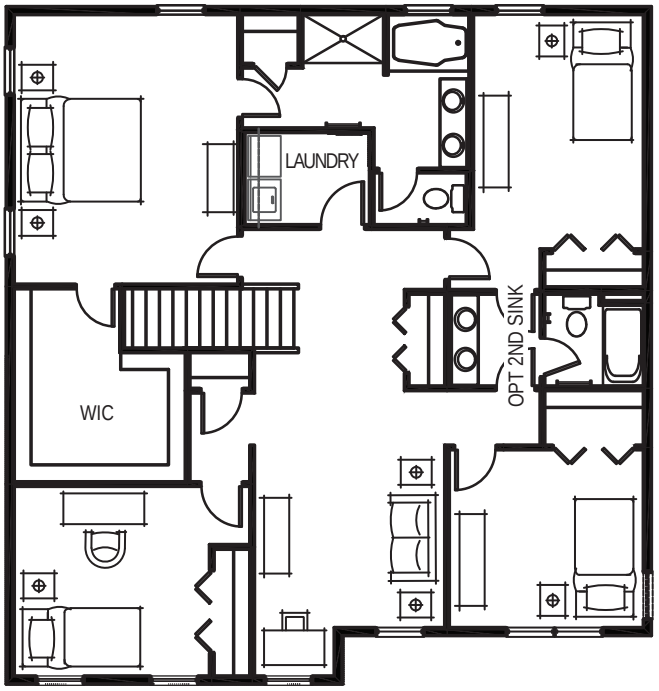
THE ADAMS

2,776 SQUARE FEET

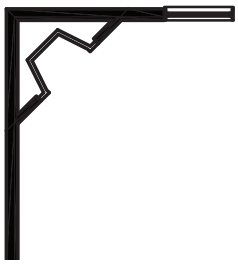
MAIN LEVEL



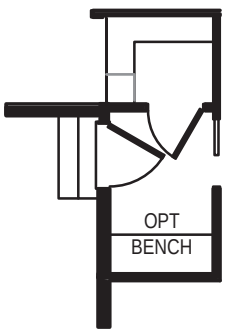
UPPER LEVEL



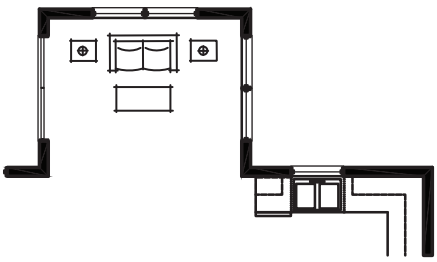
OPT GAS FIREPLACE



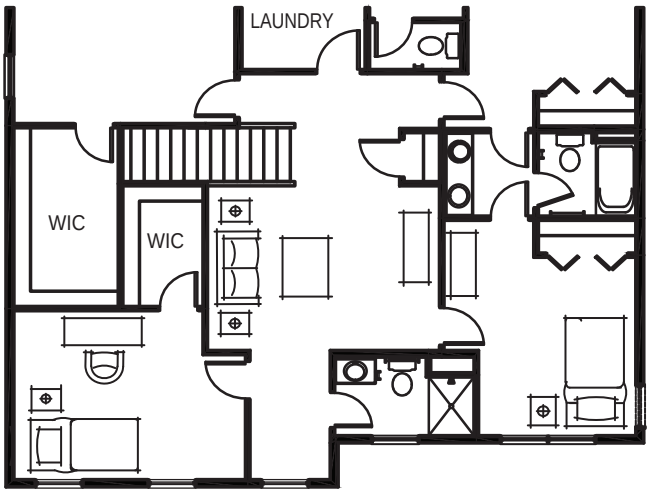
OPT POCKET DOOR



OPT SUNROOM



OPT JACK & JILL 3RD BATH



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THE GRANT


AMERICAN CLASSIC A


HEARTLAND COTTAGE C

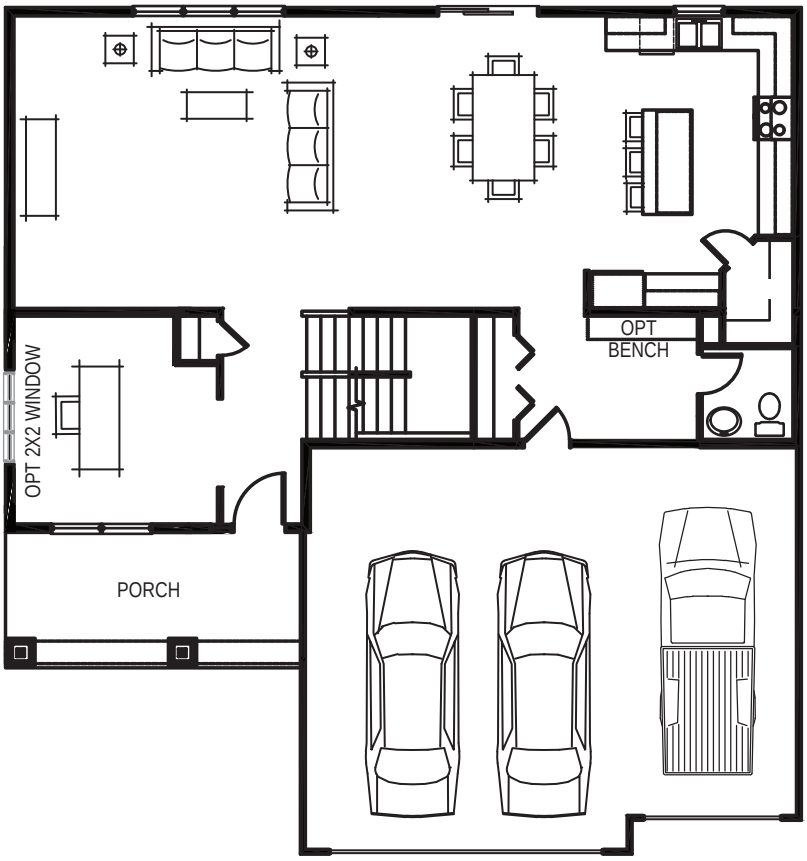

NORTHERN CRAFTSMAN B

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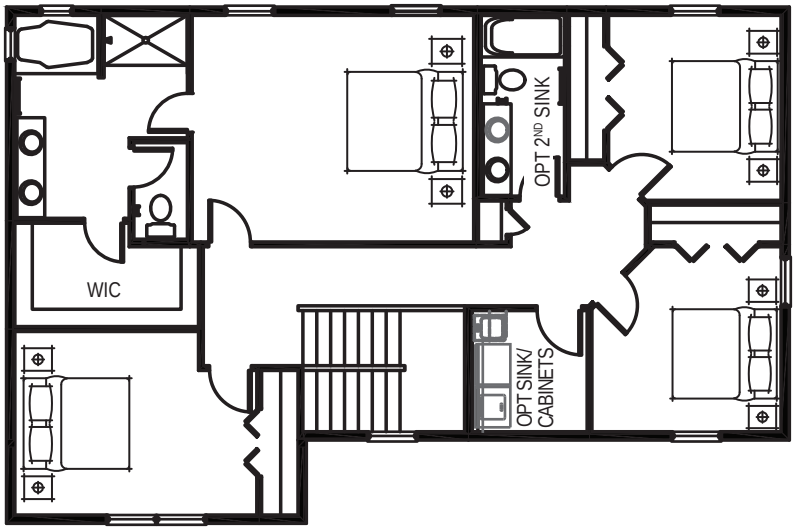
D·R·HORTON
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THE GRANT
2,553 SQUARE FEET

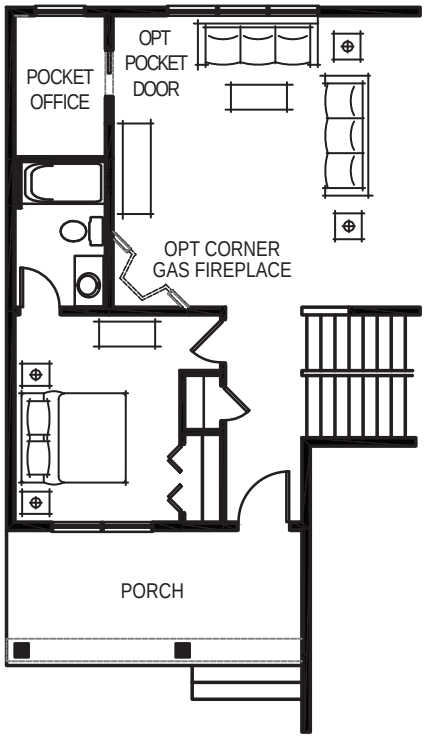
MAIN LEVEL



UPPER LEVEL



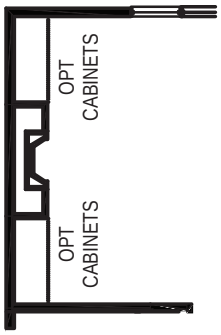
OPT MAIN LEVEL
BED, BATH, AND POCKET OFFICE



OPT LOFT IN LIEU OF BEDROOM



OPT GAS FIREPLACE



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THE BRIDGEWATER II



AMERICAN CLASSIC A



PRAIRIE D



NORTHERN CRAFTSMAN B

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THE BRIDGEWATER II

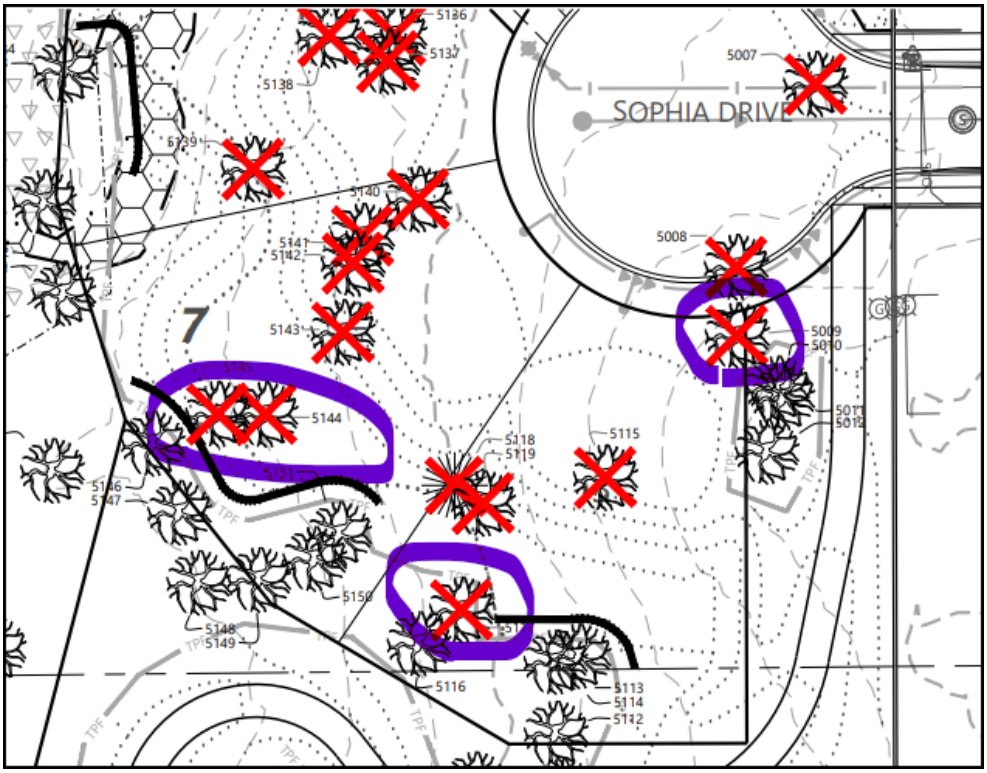
2,599 SQUARE FEET



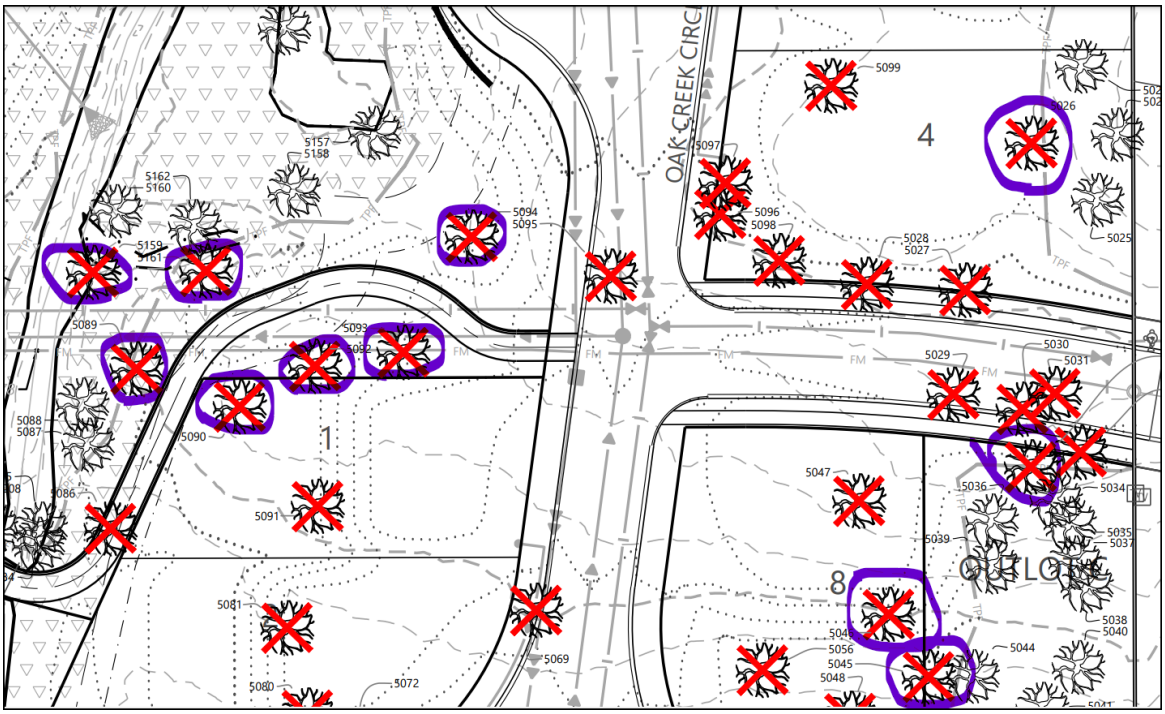
D.R. Horton is an equal housing opportunity builder. With basement foundations, water heaters and HVAC systems will be relocated to the first or second floors, as specified. All pricing, included features, terms, availability and amenities, are subject to change at any time without notice or obligation. Elevations and exterior materials may vary. Square footages, measurements and dimensions are approximate and will vary based on foundation type and options selected. Pictures, artist renderings, photographs, colors, features, and sizes are for illustration purposes only and will vary from the homes as built. Options and upgrades are available at an additional cost and are subject to availability and construction cut-off dates.

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1. **Save 4 trees (92 caliper inches) on property edges of Sophia Dr:**
    a. 5009, 5117, 5144 & 5145

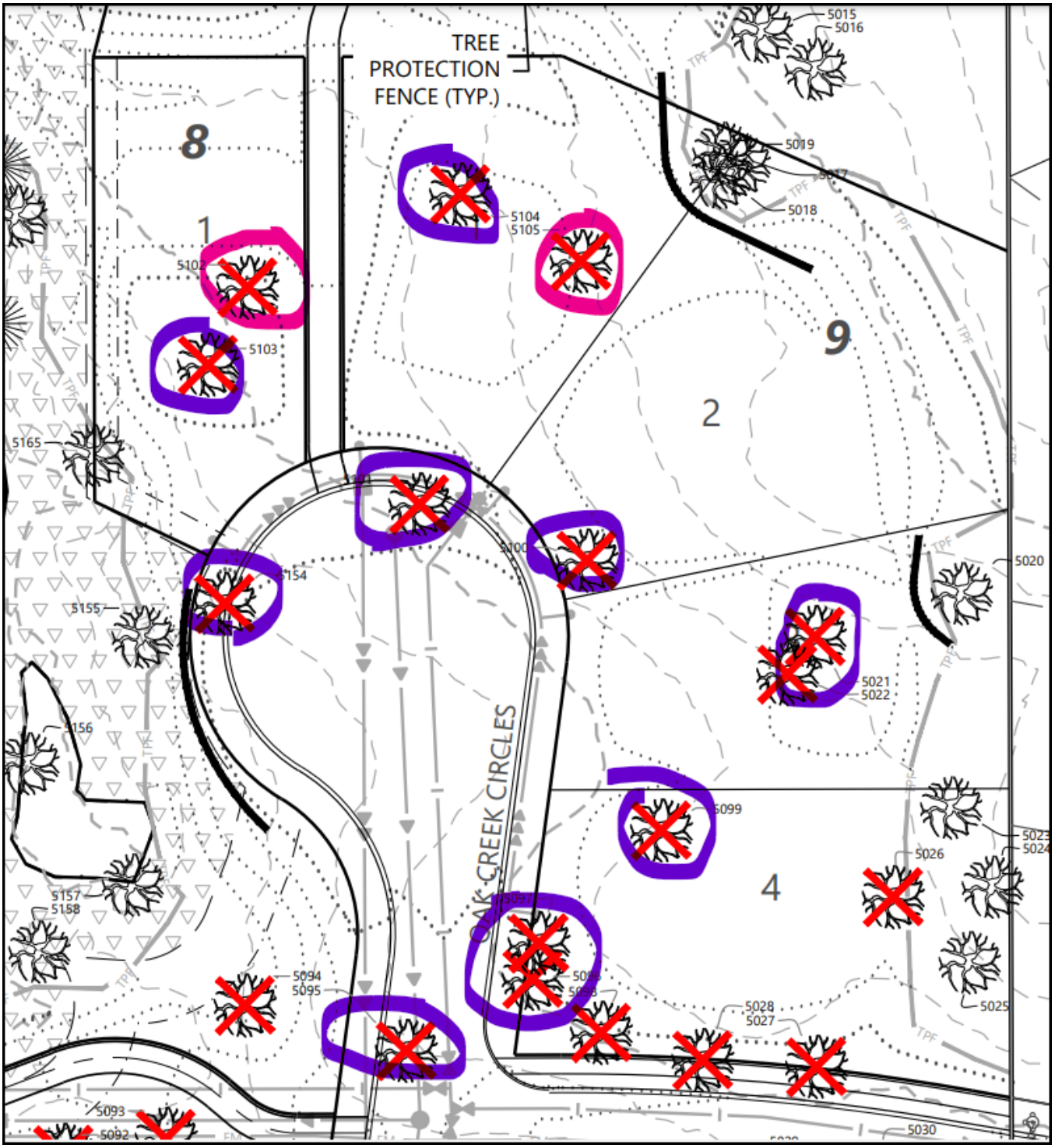


2. **Save 11 trees (292 caliper inches) on property edges of Oak Creek Circle:**
    a. 5026, 5032, 5045, 5046, 5089, 5090, 5092, 5093, 5094, 5159, 5161



These 15 trees represent saving 13% of the total tree count (16% Caliper inches) recommended to be removed.

3. **Save 11 healthy trees (298 caliper inches) & 2 unhealthy trees (77 caliper inches) by not building north cul-de-sac of Oak Creek Circles:**
    a. 5021, 5022, 5095, 5096, 5097, 5099, 5100, 5101, 5102, 5103, 5104, 5105, 5154



These 11 healthy trees represent saving 9% of the total tree count (13% Caliper inches) recommended to be removed.

Preliminary Plan

	Removed			Saved			Total		
Species	**Count**	**Size**	**Avg Size**	**Count**	**Size**	**Avg Size**	**Count**	**Size**	**Avg Size**
Bur Oak	78	1,965	25.2	63	1,723	27.4	141	3,688	26.2
Basswood	3	91	30.3	7	205	29.3	10	296	29.6
Eastern Red Cedar	26	119	4.6	17	131	7.7	43	250	5.8
Red Oak	1	26	26.0	5	161	32.2	6	187	31.2
Am. Elm	4	40	10.0	6	84	14.0	10	124	12.4
Sugar Maple	1	38	38.0	1	26	26.0	2	64	32.0
Boxelder	2	26	13.0	2	24	12.0	4	50	12.5
Fruit Tree	1	19	19.0				1	19	19.0
Black Cherry	1	12	12.0				1	12	12.0
Cottonwood	1	12	12.0				1	12	12.0
Grand Total	**118**	**2,348**	**19.9**	**101**	**2,354**	**23.3**	**219**	**4,702**	**21.5**
	53.9%	**49.9%**		**46.1%**	**50.1%**				

If trees saved on property edges

	Removed			Saved			Total		
Species	**Count**	**Size**	**Avg Size**	**Count**	**Size**	**Avg Size**	**Count**	**Size**	**Avg Size**
Bur Oak	66	1,658	25.1	75	2,030	27.1	141	3,688	26.2
Basswood	2	52	26.0	8	244	30.5	10	296	29.6
Eastern Red Cedar	26	119	4.6	17	131	7.7	43	250	5.8
Red Oak	-	-	0.0	6	187	31.2	6	187	31.2
Am. Elm	3	28	9.3	7	96	13.7	10	124	12.4
Sugar Maple	1	38	38.0	1	26	26.0	2	64	32.0
Boxelder	2	26	13.0	2	24	12.0	4	50	12.5
Fruit Tree	1	19	19.0				1	19	19.0
Black Cherry	1	12	12.0				1	12	12.0
Cottonwood	1	12	12.0				1	12	12.0
Grand Total	**103**	**1,964**	**19.1**	**116**	**2,738**	**23.6**	**219**	**4,702**	**21.5**
	47.0%	**41.8%**		**53.0%**	**58.2%**				

If trees saved on Cul-de-sac

	Removed			Saved			Total		
Species	**Count**	**Size**	**Avg Size**	**Count**	**Size**	**Avg Size**	**Count**	**Size**	**Avg Size**
Bur Oak	55	1,360	24.7	86	2,328	27.1	141	3,688	26.2
Basswood	2	52	26.0	8	244	30.5	10	296	29.6
Eastern Red Cedar	26	119	4.6	17	131	7.7	43	250	5.8
Red Oak	-	-	0.0	6	187	31.2	6	187	31.2
Am. Elm	3	28	9.3	7	96	13.7	10	124	12.4
Sugar Maple	1	38	38.0	1	26	26.0	2	64	32.0
Boxelder	2	26	13.0	2	24	12.0	4	50	12.5
Fruit Tree	1	19	19.0				1	19	19.0
Black Cherry	1	12	12.0				1	12	12.0
Cottonwood	1	12	12.0				1	12	12.0
Grand Total	**92**	**1,666**	**18.1**	**127**	**3,036**	**23.9**	**219**	**4,702**	**21.5**
	42.0%	**35.4%**		**58.0%**	**64.6%**				

Elizabeth Hanson

From: Ray Lindner <rmlindner@gmail.com>
Sent: Wednesday, April 13, 2022 5:37 PM
To: Kevin Ringwald; Elizabeth Hanson; Matt Clark; Matt Podhradsky; Nate Kabat
Subject: [EXTERNAL]Re: Planning Commission Meeting Tonight

Thanks Nate!

On Wed, Apr 13, 2022 at 3:09 PM Ray Lindner <rmlindner@gmail.com> wrote:

> Hello Nate, Liz, Matt, Matt, and Kevin,
>
> It looks like I will not be able to make it to the planning commission meeting tonight. I just wanted you to know that from my standpoint the proposal as being presented tonight for Oak Creek is a good solution to the challenges we had with the last submission.
>
> Shannon Melville and others will be at the meeting tonight to express the views of the Clover Preserve Lane neighborhood.
>
> Thank you all for your partnership and support in getting to what will be as good of a solution for all as can be expected.
>
> Regards,
>
> Ray Lindner
> 1401 Clover Preserve Dr, Chaska, MN 55318
> email: rmlindner@gmail.com

--
Regards, -Ray Lindner M: 612-581-1012 Email: rmlindner@gmail.com

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or respond unless you recognize the sender and know the content is safe.

Elizabeth Hanson

From: Nate Kabat
Sent: Thursday, April 14, 2022 2:06 PM
To: christine b
Cc: Elizabeth Hanson
Subject: RE: [EXTERNAL]Concerned resident of Clover Preserve Lane

Hello Christine,

Thank you for your feedback. Sorry to hear you are sick and were unable to join last night. The Planning Commission did vote to recommend approval of DR Horton's preliminary plan for the Oak Creek neighborhood last night. The next step is that this will go to the City Council to consider approval of the preliminary plan for Oak Creek next Monday, April 18 at their meeting that begins at 7:00 pm. You can attend that meeting in person or via Zoom if you would like and are feeling up to it.

As it pertains to the trees, you are correct there was a lot of conversation about options to potentially preserve more trees last night. The final direction by the Planning Commission was to add a condition to their recommendation of approval that staff work with DR Horton to review the proposed trees for removal to evaluate possibilities to save more. Ultimately, this direction did not extend so far as to identify any lot reconfiguration (or cul de sac removal for that matter) from what DR Horton presented in their preliminary plan.

I hope this helps to provide some clarity to the outcome of last night's discussion. You can certainly contact me or Liz Hanson, City Planner, if you have additional questions.

Thank you,

Nate Kabat, AICP
Community Development Director
City of Chaska

Desk: 952.227.7529 | Main: 952.448.9200 | www.chaskamn.com
One City Hall Plaza, Chaska, MN 55318

From: christine b <christine.berres@gmail.com>
Sent: Thursday, April 14, 2022 1:31 PM
To: Nate Kabat <nkabat@chaskamn.com>
Subject: [EXTERNAL]Concerned resident of Clover Preserve Lane

Hi Nate,

While illness prevented me from showing up last night, it has come to my attention that at the Planning Commission meeting last night, Mr. Olson, a resident of Sophia Drive, spoke at length about tree preservation alternatives. Such suggestions included favoring tree preservation on Sophia Drive by eliminating the 5 lot cul-de-sac altogether.

I would like to urge the Planning Commission not to entertain this as a possibility.

From the start, the residents of Clover Preserve Lane have been handed the short end of the stick (how is it that this street is getting 10-11 houses in the form of a double cul-de-sac, while Sophia Dr. contends only with 5 lots and a single cul-de-sac, for example?), despite having been deceived by the sales representative of DR Horton during the purchasing process (we were part of the families promised there would be no development here for at least 10 years - making this seem like a safe option - a house tucked near the end of the street - for us as we prepared the arrival of our second child)

Anyway, as you can understand, many of my neighbors on Clover Preserve Lane would like to keep as many trees as possible and do NOT want to see more development at the end of our road in exchange for less development at the end of Sophia Drive. I would appreciate any information you are willing and able to provide regarding the possibility of eliminating the cul-de-sac on Sophia altogether.

Best,
Christine Berres
1470 Clover Preserve Lane

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or respond unless you recognize the sender and know the content is safe.

Elizabeth Hanson

From: Shannon Melville <shannon.r.melville@gmail.com>
Sent: Thursday, April 14, 2022 12:58 PM
To: Nate Kabat; Deb Ridgeway; Taylor Hubbard; Elizabeth Hanson
Cc: Ray Lindner
Subject: [EXTERNAL]Oak Creek Planning Concern

Hi, Nate, Liz, Deb & Taylor -

I would like to share a concern my fellow neighbors on Clover Preserve Lane and I have after attending the Planning Commission meeting last night. Mr. Olson, a resident of Sophia Drive, spoke at length about tree preservation alternatives. Such suggestions included eliminating trees on outlot C on Clover Preserve Lane, increasing development (adding lots) on Clover Preserve Lane, and increasing tree preservation areas on Sophia Drive by eliminating the 5 lot cul-de-sac altogether.

I recognize you are still in the planning stages with more detailed work to be completed regarding tree preservation. However, would any of you be able to speak to the likelihood of the trees in outlot C being eliminated, the possibility of more lots being added to Clover Preserve Lane, and the possibility of eliminating the cul-de-sac on Sophia altogether?

As you can understand, many of my neighbors on Clover Preserve Lane would like to keep as many trees as possible and do not want to see more development at the end of our road in exchange for less development at the end of Sophia Drive. I would appreciate any information you are willing and able to provide at this point in the planning process.

Warm Regards,
Shannon Melville
2750 Clover Preserve Drive

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or respond unless you recognize the sender and know the content is safe.

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04/18/2022

Subject: **Clover Ridge Apartments – Preliminary Site & Building Plan, Preliminary Plat and Rezoning**

Applicant: AV Development, LLC

Location: South of Pioneer Trail, West of Clover Ridge Drive, North of Twin Cities & Western Railroad

Case No.: 2022-15

Synopsis: Applicant seeks to obtain approval of a 119-unit apartment development on approximately 6 acres of land just north of Clover Ridge

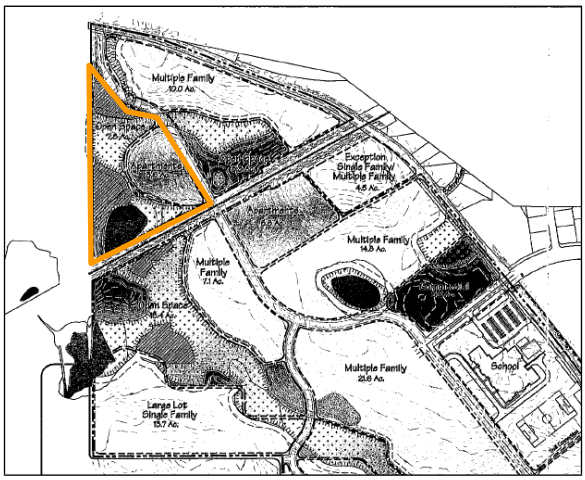
Prepared By: Elizabeth Hanson

Staff Recommendation: Motion to adopt Resolution and Ordinance

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BACKGROUND

Back in 2000 when the Clover Ridge development was being planned, the property just north of the Twin Cities & Western railroad was also conceptually looked at for use as multi-family and apartments. The site being reviewed this evening was guided for Apartments. See below.



In December 2021, the Concept Plan for Clover Ridge Apartments was approved.

Project Goals

The identified goals in creating this new neighborhood include the following:

- Provide Chaska with an upscale residential apartment complex close to nearby retail amenities
- Views of the natural amenities
- Provide a welcoming place to live
- Promote an active and healthy lifestyle

Comprehensive Plan & Land Use
The Comprehensive Plan guides this area to be High Density Residential and Open Space. The proposal tonight is consistent with this guidance.

The parcel of land that this development encompasses is currently zoned Rural (R), which is. The area in question will be rezoned to a more appropriate zoning district, such as Planned Residential Development (PRD).

Adjacent properties
The site is bound on the south by the Twin Cities & Western railway and the Clover Ridge development; to the east by Clover Ridge Drive and Pioneer Vista; the north by Pioneer Trail; and the west by property owned by the Kelzer family.

Existing Conditions
The site is 12 gross acres in size, approximately 6 of which appear to be developable, and is currently vacant open space. There is a wetland complex that appears to surround the 6 acre site on its north, west, and south edges. There are a couple stormwater ponds that sprinkle the property on the north side that were put in with the development of Clover Ridge Drive. The topography includes a high point off of Clover Ridge Drive, which is an ideal spot for development, then it gradually slopes down towards the surrounding wetlands. The site offers beautiful and unobstructed views of the wetlands and woodlands beyond. These natural features will create a natural buffer for the project from surrounding land uses.

CURRENT PROPOSAL
The proposed Clover Ridge Apartment project would consist of approximately 119 market-rate units on 3.2 acres of land (38 units/acre net density).

The existing wetland complex is intended to remain undisturbed. The existing stormwater ponds will also remain and may be expanded to incorporate this new development. An amenity or gathering area of some type is proposed on the west edge of the site near the wetland area.

Layout
The apartment site will be directly accessed off the west side of Clover Ridge Drive. The building is angled and will surround the surface parking lot that faces out towards Clover Ridge Drive. The underground parking can be accessed from two different levels and by two separate points on the building; one on the northeast side, and the other on the south side. The northeast access will be at grade and provide 21 sheltered parking stalls. The south access will be below grade and provide 92 underground parking stalls.

Building Design & Height
The building is angled with the front façade facing Clover Ridge Drive. The building will contain approximately 119 units (195 total bedrooms) in four stories. These units will be a mixture of studio, one-bedroom, two-bedroom, and three-bedroom units. There will be one level of underground parking. Some of the site and project amenities will include a community room with full kitchen, large screen TV and high-quality sound system, fully equipped fitness room, media room, pet washing station and play area.

According to the applicant the target resident for the project will be empty nesters, families, as well as millennials; those that are renting by choice because of their lifestyle and having access to more amenities from an apartment complex.

The building is proposed to be constructed out of glass, modular brick, architectural precast concrete, and fiber cement siding. The City of Chaska has certain building design and material requirements for multi-family residential buildings. A portion of it is stated as follows:

"Multi-family buildings shall use at least three (3) Class I materials and shall be composed of at least eighty (80) percent Class I materials, and no more than five (5) percent Class III materials

Building Materials	
Class I	Glass, face brick modular, fiber cement siding (88%)
Class II	Architectural Precast Concrete (12%)
Class III	Not provided
CLASS I REQUIRED	80%; three different materials
CLASS III REQUIRED	Shall not exceed 5%
CLASS I PROVIDED	88%; three different materials
CLASS III PROVIDED	None

The applicant is showing that their building meets the requirements. The applicant has provided a conceptual renderings of the building. The building's exterior appearance appears to show a well-balanced application of colors and depth. The building will have 360 degree viewsheds and thus the balance of materials and articulation are important. It was unclear in the submittal how the building plans fit into Chaska. The applicant will have to show in their final submittal how the building brings in Chaska elements.

The height of the building will be approximately 42 feet tall and four stories. Generally speaking, four stories fits with other apartment buildings built in Clover Ridge (i.e. Cloverfield Marketplace and Clover Ridge Condominiums).

Setbacks
Namely, the front yard setback should be no less than 20 feet. The rear yard setback should be 20 feet. The side yard setback should be 10 feet. Corner lots should have a side yard setback of 20 feet. In addition to these setbacks, there are other setbacks that may apply to this site. See below:

SETBACKS	
Direction	**Setback**
Railway	50 feet

PARKING SETBACKS	
Direction	**Setback**
ROW	10 feet
Interior Property Lines	5 feet

Parking/Access/Circulation/Traffic
195 parking spaces are proposed as a part of this project; 120 underground stalls and 75 above ground stalls. The following chart summarizes the overall parking demand on the site, based on the approximated sizes of the conceptual uses.

Uses	Approx. Size	Code Req.	Est. Parking Req.
Multi-Family Res.	119 dwelling units	2ps/dwelling unit	238 parking spaces
		REQUIRED	**238 parking spaces**
		PROVIDED	**195 parking spaces**

According to this table the applicant is not meeting the required amount of parking spaces needed for the proposed use of the site. The site is providing 195 stalls (43 stall deficiency) and meets a 1.65 parking stall per dwelling unit ratio (0.35 ratio deficiency). The developer completed a parking analysis which concluded that their size of building would require 148 stalls based on comparable suburban apartment complexes. The building is proposing to provide 195 total bedrooms, which the parking will provide a 1:1 ratio for.

For relatable comparison, the Lake Jonathan Flats project is very comparable in size and parking. Lake Jonathan Flats was approved for 117 dwelling units (156 total bedrooms) and a reduced amount of parking. Their site showed 199 stalls on site, which was equivalent to 1.7 parking stalls per dwelling unit. The Lake Jonathan Flats building has since been constructed and operating. Staff has not noticed nor has been notified of any parking issues here.

During the analysis of the Lake Jonathan Flats building it was also determined that a 1 parking stall per bedroom ratio was a sufficient way to provide parking for an apartment. A summary provided showed examples of other apartment complexes in the Twin Cities area. It identified the dwelling unit and bedroom counts and parking accommodations for each apartment complex to give one a realistic understanding of the parking needs for this type of apartment product. Upon comparison, the Lake Jonathan Flats proposal met or exceeded the parking totals necessary for this type of product as it relates to parking stalls per dwelling unit and parking stalls per bedroom unit.

Staff also wanted to understand this 1:1 parking space to bedroom unit ratio first-hand by relating it to an existing project in the City. Staff looked at the Chaska Place Apartments (fka. North Meadows Apartments) located just west of the Fire Station on Engler Boulevard. The

program make-up in this complex equals 127 units with a total of 259 bedrooms. By ordinance, this complex was required to provide 254 parking stalls, however, the total amount of parking provided was 259 stalls. If the amount of bedroom units dictated the amount of parking stalls required then this complex would be in compliance. By all accounts, this apartment complex provides adequate parking for their residents based on the notions that street parking has not been observed or a parking deficiency has not been brought up. With that in mind, staff finds that the parking space to bedroom ratio is an appropriate way of determining adequate parking.

The Lake Jonathan Flats building incorporates 22% studios, 45% one-bedroom, and 33% two-bedroom units (156 total bedrooms). The Clover Ridge Apartment building incorporates 8% studios, 42% one-bedroom, and 37% two-bedroom, and 13% 3-bedroom units (195 total bedrooms).

Overall, the parking information provided by the applicant, field observations of existing examples (including a very comparable example of Lake Jonathan Flats), and parking based on bedroom counts all suggest that the parking proposed will accommodate the Clover Ridge Apartments project.

The access into the site will be from one ingress/egress point on Clover Ridge Drive. The underground parking lot and surface parking lot will be accessed from this ingress/egress point.

A traffic study was completed for this project. The study concluded that the project the will have appropriate access to the sites and to the surrounding roadway network. The traffic operational analysis indicates there is available capacity on the roadways surrounding the site to accommodate site-generated traffic.

Construction access will enter and exit from Pioneer Trail to the north. Construction traffic will be precluded from going south on Clover Ridge Drive per the developer's construction access plan.

Pedestrian Connections
Pedestrian systems currently exist on both sides of Clover Ridge Drive. A sidewalk on the east side and a public trail on the west side that stubs up to Pioneer Trail. Internal sidewalks from the site will provide access to the public trail. Another multi-use trail stubs north of the apartment building that provides access to the existing stormwater pond. The site plan shows this stormwater access to be relocated on the north side of the pond.

Landscaping
The table below indicates the landscaping requirements for this site:

LANDSCAPING REQUIREMENTS & PROPOSED		
	Required	**Proposed**
Overstory Trees	442 caliper inches	447 caliper inches

Understory Trees	36	36
Shrubs	471	471

Usable Open Space
Multi-Family residential building sites are required to provide sufficient, usable open space, which is defined as defined as "a portion of a lot which provides the purpose for outdoor recreation, scenic amenity, and/or shared exterior space for people to gather and use". A minimum of 15% of the gross site area shall be shared open area. The applicant is showing that 28% of their site will be usable open space.

The site is showing three different areas for usable open space. One area is shown on the west side of the building for an outdoor patio, which can be accessed via the building. This patio space will be elevated over the underground parking area and contain seating and eating areas. The other patio near the southeast portion of the building will contain grilling area and picnic tables. The other area for usable open space is situated on the south portion of the site. It will contain benches, a natural path that will meander through the landscaping, and provide pleasant views of the adjacent wetland area.

Lighting
Any lighting proposed for this plan should be fully screened and face downward. The specs proposed will meet this. Parking lot poles will be 22 feet high.

Utilities
Water and sewer are available to serve this site.

Stormwater
The applicant will work with the City to determine the drainage necessities for the site. They will need to meet City and County standards.

Development Costs (Infrastructure Improvements)
The City of Chaska has a number of area-wide development cost such as, but not limited to:

- Storm Sewer
- Trails
- Parks

Prior to final platting, the developer will need to work with City Staff to determine which of these are applicable and what those fees will be.

Preliminary Plat
The site will be platted into one lot for the apartment site. The following are the proposed outlots and their dispositions:

- Outlot A: wetland and stormwater ponding to be owned by the City of Chaska

Rezoning
The site is being rezoned from Rural (R) to Planned Residential District No. 84 (PRD-84).

Schedule
The developer's goal is to start construction of the project at the end of April/beginning of May 2022. The construction of the project takes approximately 18-20 months, with the anticipation to be completed by Spring of 2024.

Deadline for Agency Action
The City of Chaska received the complete application for this request on March 23, 2022. Pursuant to Minnesota State Statutes the City must act on this request by **Sunday, May 22, 2022 (60 days)**, unless the City provides the petitioner with written reasons for an additional 60-day review period. The additional review period would extend to Thursday, July 21, 2022. The City may with the petitioner's consent extend the review period beyond the Tuesday, July 21, 2022 date. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

PLANNING COMMISSION ACTION TAKEN 04/13/2022:
Motion to recommend to City Council approval of the Clover Ridge Apartment Preliminary Site & Building Plan and Preliminary Plat for 119 units, subject to the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-4), prepared by AV Development, LLC, dated March 7, 2022
    b. Parking Study (pgs 1-3), prepared by Swing Traffic Solutions, dated February 13, 2022
    c. Existing Conditions Survey, prepared by Sambatek, dated January 5, 2022
    d. Preliminary Plat, prepared by Sambatek, dated March 25, 2022
    e. Title Sheet (pg C1.01), prepared by Sambatek, dated March 31, 2022
    f. Demolition Plan (pg C2.01), prepared by Sambatek, dated March 31, 2022
    g. Site Plan (pg C3.01), prepared by Sambatek, dated March 31, 2022
    h. Grading Plan (pg C4.01), prepared by Sambatek, dated March 31, 2022
    i. Utility Plan (pg C6.01), prepared by Sambatek, dated March 31, 2022
    j. Details (pgs C9.01-C9.02), prepared by Sambatek, dated March 31, 2022
    k. Landscape Plan (pg L1.01), prepared by Sambatek, dated March 31, 2022
    l. Landscape Details and Notes (pg L1.02), prepared by Sambatek, dated March 31, 2022
    m. Photometric Site Plan, prepared by Mlazgar Associates, dated February 1, 2022
    n. Fire Truck Turning Exhibit, prepared by Sambatek, dated March 7, 2022
    o. Construction Access Plan, undated
    p. Open Space Exhibit, prepared by Sambatek, dated March 31, 2022
    q. Clover Ridge Apartments (pgs A101-A105), prepared by J Corp, dated January 28, 2022
    r. Clover Ridge Apartments (pgs A201-A202), prepared by J Corp, dated March 7, 2022
    s. Clover Ridge Apartments (pg A203), prepared by J Corp, dated March 31, 2022
2. Adherence with the City Engineer's Memo dated April 13, 2022.
3. Adherence to the following setbacks for Clover Field Apartments:
    a. Front: 20 feet
    b. Rear: 20 feet
    c. Side: 10 feet
    d. Side (corner): 20 feet
4. Provision of 360 degree architecture be used on all facades.
5. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
6. Provision of a storm water management plan meeting City and Carver County WMO standards.
7. Provision of a construction traffic plan to be coordinated and approved by the City Engineer.
8. Provision that if masonry is used that they are natural stone and/or full face modular

brick in order to be considered Class I materials.

9. Provision that mechanical equipment will be completely screened from view.
10. Provision that the building is designed to fit in Chaska and be addressed at final submittal.
11. Provision that section 15.28 Special Regulations are complied with.
12. Provision that light poles do not exceed 25 feet in height and comply with zoning section 15.28.250.

Motion to recommend approval of the rezoning from Rural (R) to Planned Residential District (PRD-84).

CITY COUNCIL ACTION REQUESTED

Motion to adopt Resolution No. 2022-43 approving the preliminary site and building plan and preliminary plat for Clover Ridge Apartments (PC #2022-15).

Motion to adopt Ordinance No. 1016 approving the rezoning from Rural (R) to Planned Residential District (PRD-84)

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-43

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

Resolution approving the Preliminary Site & Building Plan and Preliminary Plat for Clover Ridge Apartments/AV Development/PC #2022-15

WHEREAS, the proposed Clover Ridge Apartment project would consist of approximately 119 market-rate units on 3.2 acres of developable land (38 units/acre net density); and

WHEREAS, the apartment site will be directly accessed off the west side of Clover Ridge Drive; and

WHEREAS, the building is proposed to be constructed out of glass, modular brick, architectural precast concrete, and fiber cement siding; and

WHEREAS, if brick is used it needs to be a full face modular brick in order to be classified as a Class I material; and

WHEREAS, 195 parking spaces are proposed as a part of this project; 120 underground stalls and 75 above ground stalls; and

WHEREAS, the site is providing 195 stalls (43 stall deficiency) and meets a 1.65 parking stall per dwelling unit ratio (0.35 ratio deficiency); and

WHEREAS, the developer completed a parking analysis which concluded that their size of building would require 148 stalls based on comparable suburban apartment complexes; and

WHEREAS, the building is proposing to provide 195 total bedrooms, which the parking will provide a 1:1 ratio for; and

WHEREAS, a traffic study was completed for this project, and the study concluded that the project the will have appropriate access to the sites and to the surrounding roadway network; and

WHEREAS, the traffic operational analysis indicates there is available capacity on the roadways surrounding the site to accommodate site-generated traffic; and

WHEREAS, construction access will enter and exit from Pioneer Trail to the north, and construction traffic will be precluded from going south on Clover Ridge Drive per the developer's construction access plan; and

WHEREAS, the site is showing three different areas for usable open space; and

WHEREAS, one area is shown on the west side of the building for an outdoor patio, which can be accessed via the building; and

WHEREAS, this patio space will be elevated over the underground parking area and contain seating and eating areas; and

WHEREAS, the other patio near the southeast portion of the building will contain grilling area and picnic tables; and

WHEREAS, the other area for usable open space is situated on the south portion of the site; and

WHEREAS, it will contain benches, a natural path that will meander through the landscaping, and provide pleasant views of the adjacent wetland area; and

WHEREAS, the site will be platted into one lot for the development site, and the following are the proposed outlots and their dispositions:

- Outlot A: wetland and stormwater ponding to be owned by the City of Chaska; and

WHEREAS, on April 13, 2022 the Planning Commission recommended approval to the City Council of the Preliminary Site & Building Plan and Preliminary Plat for Clover Ridge Apartments (PC#2022-15); and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Preliminary Site & Building Plan and Preliminary Plat for Clover Ridge Apartments (PC#2022-15), subject to the aforementioned stipulations and following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Project Narrative (pgs 1-4), prepared by AV Development, LLC, dated March 7, 2022
    b. Parking Study (pgs 1-3), prepared by Swing Traffic Solutions, dated February 13, 2022
    c. Existing Conditions Survey, prepared by Sambatek, dated January 5, 2022
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    g. Site Plan (pg C3.01), prepared by Sambatek, dated March 31, 2022
    h. Grading Plan (pg C4.01), prepared by Sambatek, dated March 31, 2022
    i. Utility Plan (pg C6.01), prepared by Sambatek, dated March 31, 2022
    j. Details (pgs C9.01-C9.02), prepared by Sambatek, dated March 31, 2022
    k. Landscape Plan (pg L1.01), prepared by Sambatek, dated March 31, 2022
    l. Landscape Details and Notes (pg L1.02), prepared by Sambatek, dated March 31, 2022
    m. Photometric Site Plan, prepared by Mlazgar Associates, dated February 1, 2022
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    r. Clover Ridge Apartments (pgs A201-A202), prepared by J Corp, dated March 7, 2022
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2. Adherence with the City Engineer's Memo dated April 13, 2022.
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    c. Side: 10 feet
    d. Side (corner): 20 feet
4. Provision of 360 degree architecture be used on all facades.
5. Prior to final plat approval, developer shall enter into an agreement with the City for the provision of necessary infrastructure and associated development costs.
6. Provision of a storm water management plan meeting City and Carver County WMO standards.
7. Provision of a construction traffic plan to be coordinated and approved by the City Engineer.
8. Provision that if masonry is used that they are natural stone and/or full face modular

brick in order to be considered Class I materials.

9. Provision that mechanical equipment will be completely screened from view.
10. Provision that the building is designed to fit in Chaska and be addressed at final submittal.
11. Provision that section 15.28 Special Regulations are complied with.
12. Provision that light poles do not exceed 25 feet in height and comply with zoning section 15.28.250.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

CITY OF CHASKA

ORDINANCE NO. 1016

MOTION BY COUNCILMEMBER _____, SECOND BY COUNCILMEMBER _____

AN ORDINANCE AMENDING ORDINANCE NO. 229 (ZONING ORDINANCE) BY REZONING CERTAIN REAL ESTATE WITHIN THE CITY OF CHASKA

THE CITY COUNCIL OF THE CITY OF CHASKA DO ORDAIN:

Section I. Rezoning. The boundaries of the Zoning Districts as established by Ordinance No. 229 and as shown on the Zoning Map of Chaska, Minnesota are hereby amended as follows:

The following described real estate is hereby removed from the Rural (R) zoning district and rezoned to Planned Residential Development No. 84 (PRD-84):

Block 1, Clover Ridge Apartments

The following graphic exhibits shall serve as the general guide for development of the area:

1. Existing Conditions Survey, prepared by Sambatek, dated January 5, 2022
2. Preliminary Plat, prepared by Sambatek, dated March 25, 2022
3. Title Sheet (pg C1.01), prepared by Sambatek, dated March 31, 2022
4. Demolition Plan (pg C2.01), prepared by Sambatek, dated March 31, 2022
5. Site Plan (pg C3.01), prepared by Sambatek, dated March 31, 2022
6. Grading Plan (pg C4.01), prepared by Sambatek, dated March 31, 2022
7. Utility Plan (pg C6.01), prepared by Sambatek, dated March 31, 2022
8. Details (pgs C9.01-C9.02), prepared by Sambatek, dated March 31, 2022
9. Landscape Plan (pg L1.01), prepared by Sambatek, dated March 31, 2022
10. Landscape Details and Notes (pg L1.02), prepared by Sambatek, dated March 31, 2022
11. Photometric Site Plan, prepared by Mlazgar Associates, dated February 1, 2022
12. Fire Truck Turning Exhibit, prepared by Sambatek, dated March 7, 2022
13. Construction Access Plan, undated
14. Open Space Exhibit, prepared by Sambatek, dated March 31, 2022

15. Clover Ridge Apartments (pgs A101-A105), prepared by J Corp, dated January 28, 2022
16. Clover Ridge Apartments (pgs A201-A202), prepared by J Corp, dated March 7, 2022
17. Clover Ridge Apartments (pg A203), prepared by J Corp, dated March 31, 2022

Section II. **PRD-84 District regulations.**

Permitted uses and regulations applicable to the PRD-84 District shall be as follows:

A. Intent

The intent of PRD-84 is to create a multi-family residential site that will take advantage of the natural views of the site.

B. Permitted Uses

Permitted uses shall be the following:

1. Lot 1, Block 1, Clover Ridge Apartments:

a) Multi-Family Residential.

C. Accessory Uses

Customary accessory uses incidental to the foregoing principal use, including but not limited to the following:

1. Off street parking and loading facilities as regulated by Section 15.28.030 of the zoning ordinance, except as follows:
   a. Lot 1, Block 1, Clover Ridge Apartments:
      i. One space per bedroom unit.
2. Signs as regulated by Section 15.32 of the Zoning Ordinance.

D. Building Setbacks

Minimum building setbacks shall be as follows:

1. Front: 20 feet
2. Rear: 20 feet
3. Interior Property Lines: 10 feet

Minimum parking setbacks shall be as follows:

1. From Right-of-Way: 10 feet
2. Interior Property Lines: 5 feet

E. Development Regulations

Development regulations shall be as follows:

1. Maximum building height shall be four stories.

Section III. Effective Date. This Ordinance shall be in full force and effect from and after its date of passage, adoption, and publication according to law.

Passed and adopted by the City Council of the City of Chaska, Minnesota this 18th day of April, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Deputy Clerk

City of Chaska
Memorandum

To: **Planning Commission**
From: **Matt Clark, City Engineer**
Date: **April 13, 2022**
Subject: **Clover Ridge Chaska Apartments – Prelim Plat Plan**

The planned development for the site proposes a new apartment building and parking lot along with site amenities. From an overall sewer and water standpoint, the use over the site is consistent with the City's comprehensive plan with capacity in the system to serve what's proposed. When Clover Ridge Drive was extended in the mid 2000's, access along with sewer and water stubs were installed into the property. The storm water management plan and grading plan must meet both the City and watershed requirements prior to grading occurring. The utility plans will need to be coordinated with staff.

The overarching traffic study that was completed to analyze the impacts concluded the development has appropriate access to the surrounding road network with no concern of operations at any of the surrounding intersections. While traffic will increase with development, no improvements are recommended due to the surrounding roadways having sufficient capacity.

ONE CITY HALL PLAZA/CHASKA, MN 55318-1962/PH: (952) 448-2851/ FX: (952) 448-9300

AV Development, LLC
11800 Singletree Lane Suite 301
Eden Prairie, MN 55344

March 7, 2022

Elizabeth Hanson
City Planner
City of Chaska
One City Hall Plaza
Chaska, MN 55318

Re: Request for Rezone, Preliminary Plat, Building/Site Plan Review Approval
Clover Ridge Chaska Apartments

Dear Ms. Hanson,

AV Development, LLC is requesting Concept Plan approval from the City of Chaska for a new ground up luxury apartment complex on 12.0 acre parcel of land located on Clover Ridge Drive (Outlot B Pioneer Vista, PID #305000560). We are submitting an Application Fee and Processing Fee per the requirements.

Goal of the Project:

The apartment project will provide Chaska with an upscale residential apartment complex closer to everyday conveniences and within a beautiful setting that integrates itself with trails and woodlands. The property's natural attributes and nearby retail amenities make an apartment residential complex the highest and best use of the land / property. As visioned, the apartment project would be a welcoming place to live, promoting an active and healthy lifestyle, which will allow Chaska to continue and realize its vision as "The Best Small Town in Minnesota".

The Property:

The proposed apartment project will occupy approximately 6.0 acres of the total 12.0-acre parcel. Refer to the project documents for further depiction of the site and location.

Existing Conditions:

The site is an undeveloped parcel with the railroad creating the southern boundary and Clover Ridge Drive curving to create the eastern and northern boundary to the site. There are already a couple of storm ponds from the development of the Clover Ridge Rd that could easily be expanded to accommodate storm water from our project. The topography includes high point off of Clover Ridge Drive, an ideal spot for development, and it slopes down to the surrounding wetlands. The site offers beautiful and unobstructed views west of the surrounding wetlands and mature woodlands beyond. These natural features will create a natural buffer for the project from surrounding land uses as half of the site is proposed to remain in its natural state.

Additionally, every effort will be made to preserve natural features adjacent to the building area, including existing trees to the extent feasible.

In order to facilitate development, we anticipate the site will need to export soil to allow for the subsurface parking and allow for natural grades to hit the building at a slope that feels as if the building is emerging from the land.

Description of Apartment Project:

The apartment project will contain 120 market rate units in a four-story structure with a variety of modern floor plan designs including a mixture of bedroom units (studios, one, two, and three). There will be one level of underground parking and additional surface parking which will provide a parking still for each unit. Green space will be maximized with preservation of the wetland, and the inclusion of outdoor patios, grills, and community room that enhance community interaction amongst the residents. Since the proposed complex is not large in scale, the residential units will be easily absorbed with current rental property demand in the community.

The apartment project will be a luxury, market-rate residential complex offering its resident a wide array of amenities within the units themselves as well as within the overall complex. Some of the site and project amenities will include: community room with full kitchen, large screen TV and high-quality sound system, fully equipped fitness room, media room with USB ports, pet washing station and play area. Residential units will include: walk-in closets, high speed internet, in-unit washers and dryers, private balcony or patio, full stainless-steel kitchen appliances.

The target resident for the project will be empty nesters, families, as well as Millennials, those that are renting by choice because of their lifestyle and are seeking more amenities from an apartment complex.

The building and project will fit in with surrounding neighborhoods by utilizing similar and complimentary exterior materials consisting of lap siding and manufactured stone, complimentary colors, and building massing that ties into the multi-family projects in the vicinity.

The project will comply with City of Chaska site lighting requirements. Exterior lighting will not be directed upon adjacent land or the public right-of-way.

Parking:

The project requires a parking ratio of 2 parking stalls per dwelling unit per City requirements. The developable area of the site is prohibitive to provide the amount of surface parking necessary to accomplish this ratio. The building provides for 120 interior parking stalls, while the site provides an additional 74. This totals 194 total stalls, or 1.65 stalls per dwelling unit.

The unit mix totals 195 bedrooms, so the parking count comes very close to achieving at 1:1 stall/bedroom ratio.

A parking study was completed to estimate the peak parking demands for the project and determine if sufficient parking capacity is provided. The results of the parking study indicate a demand of 148 total parking spaces.

Architectural Details:

Here is a brief summary of architectural details / features:

1) The exterior finish comprises of a combination of LP siding or Cement board siding and manufactured stone veneer.
2) Exterior windows and doors at residential units are fiberglass or vinyl with U values compliant with Minnesota Energy Conservation Code 2020.
3) Exterior doors at common areas are an aluminum storefront system while the windows are fiberglass or vinyl, with U values compliant with Minnesota Energy Conservation Code 2020.
4) Any rooftop mechanical equipment would be adequately screened from street level view.
5) All exterior colors / finishes would follow a cohesive and complementary design strategy, delivering an upscale aesthetic to the neighborhood.
6) Interior colors and finishes would also follow a cohesive and complementary design strategy, creating an environment that enhances livability.

Access and Connectivity:

Access to the site will be obtained via Clover Ridge Drive. The site can be roughly by reached to Minneapolis-St. Paul International Airport and the Mall of America within a 30-minute drive. The 30-minute drive time also reaches as far as Delano to the north, New Prague to the south, and nearly to Glencoe to the west.

The site is surrounded by a mix of residential, institutional, industrial, and commercial uses and are situated near employment concentrations and retail activity, as well as near the Chaska school system (specifically in the Eastern Carver County School District).

The site will connect pedestrians to adjacent neighborhoods in Chaska via the trail on the west side of Clover Ridge Drive.

Compliance:

Currently, the Site is zoned as Rural. We are proposing that the site be zoned Planned Residential District (PRD).

Drainage:

The site is sloped to drain to the Southwest corner which is the sites low point. There is active ponding that takes place within the delineated wetland. There are existing retention ponds on the property constructed with the construction of Clover Ridge Rd.

Proposed stormwater management will comply with City of Chaska and Carver County Watershed Management Organization rules and requirements.

Developer Experience:

Ashish Aggarwal is a full-time real estate owner / operator for the last 20 years, portfolio includes over 1.5 million of square feet under ownership and management in MN and AZ. This includes residential, senior living, office, industrial, and retail. Stonebay of Orono senior living project is the last development completed.

Vishal Dutt has been in real estate for the last 20 years with various real estate owners / operators in various asset types (retail, industrial, office, multi-family housing, senior living housing). Specialization includes ensuring financial and operational diligence for all aspects of real estate.

We look forward to working with the City of Chaska on this application and project. Our goal is to enhance the community and surrounding area, want to do what's best for the area.

Thank you,

AV Development, LLC

SSTS
S² TRAFFIC SOLUTIONS

February 13, 2022

To: **Vishal Dutt**
Josh McKinney

From: **Vernon Swing, PE**

Re: **Parking Demand for Clover Ridge Apartments, Chaska, MN**

Per your request, S² Traffic Solutions, LLC has conducted a parking demand analysis for the proposed development of a 119-unit, 205 bedroom, Multi-Family residential development in Chaska, MN. The site is located on the west side of Clover Ridge Rd, and is planned to include 199 parking stalls. The purpose of this study is to estimate peak parking demands for the proposed use and determine if sufficient parking capacity will be provided with the development.

Parking Demand

The parking demand for the proposed Clover Ridge Apartments development utilized *Parking Generation*, 4th Edition, published by ITE, the Institute of Transportation Engineers. The ITE information for Land Use Code 221 associated with Mid-rise multi-family residential buildings indicates the number of parking spaces needed to address the demand associated with this land use can be estimated based on the number of dwelling units or the number of bedrooms included with the project. The number of dwelling units is the most generic category since it includes units with one, two three or four bedrooms. The number of bedrooms is the most accurate for estimating demand with new developments. In this case, there are 205 bedrooms planned with this development.

Also, parking demand statistics are available for different area types, whether suburban, dense urban or City Center. In this case suburban was chosen because the statistics are more conservative suggesting more residents will drive, and because the characteristics for the other two categories include robust transit options which reduce parking demand, which is not present in this case.

The parking demand calculation includes are two methods. The first method is based on a rate of parking demand per "unit" determined from a weighted average of collected data. The second method is based on a fitted curve equation generated to fit the collected data. ITE recommendations as to the appropriate method are as follows:

From ITE:

"When the data plot includes at least 20 points and when a fitted curve is provided the fitted curve equation should be used if the R square value is 0.75 or greater.

Coefficient of Determination (R squared)— the percent of the variance in the number of parked vehicles associated with the variance in the independent variable value. This value is presented for every fitted

curve equation. If the R squared value is 0.75, then 75 percent of the variance in the number of parked vehicles is accounted for by the variance in the size of the independent variable. As the R squared value approaches 1.0 the better the fit; as the R squared value approaches zero, the worse the fit."

In this case the fitted curve equation was chosen as the regression analysis indicates the R squared is 0.94 indicating this is the most accurate method for estimating demand (see attached sheet from ITE). The Parking Demand is calculated as follows, with P representing Parking Demand, and X representing the number of bedrooms:

$$P = 0.82 (X) – 20.37$$
$$P = 0.82 (205) – 20.37$$
$$P = 148 \text{ Spaces}$$

As mentioned earlier the proposed development is planning to provide 199 spaces for residents and guests, exceeding the anticipated demand calculated at 148 spaces.

Conclusion

In conclusion, the proposed Clover Ridge Mid-rise Apartment development has sufficient parking for the anticipated demand. The parking supplied as part of the overall development exceeds the anticipated needs. Please contact Vernon Swing at vswingtraffic@gmail.com or 612-968-4142 with any questions.

Attachment: ITE Parking Demand Sheet

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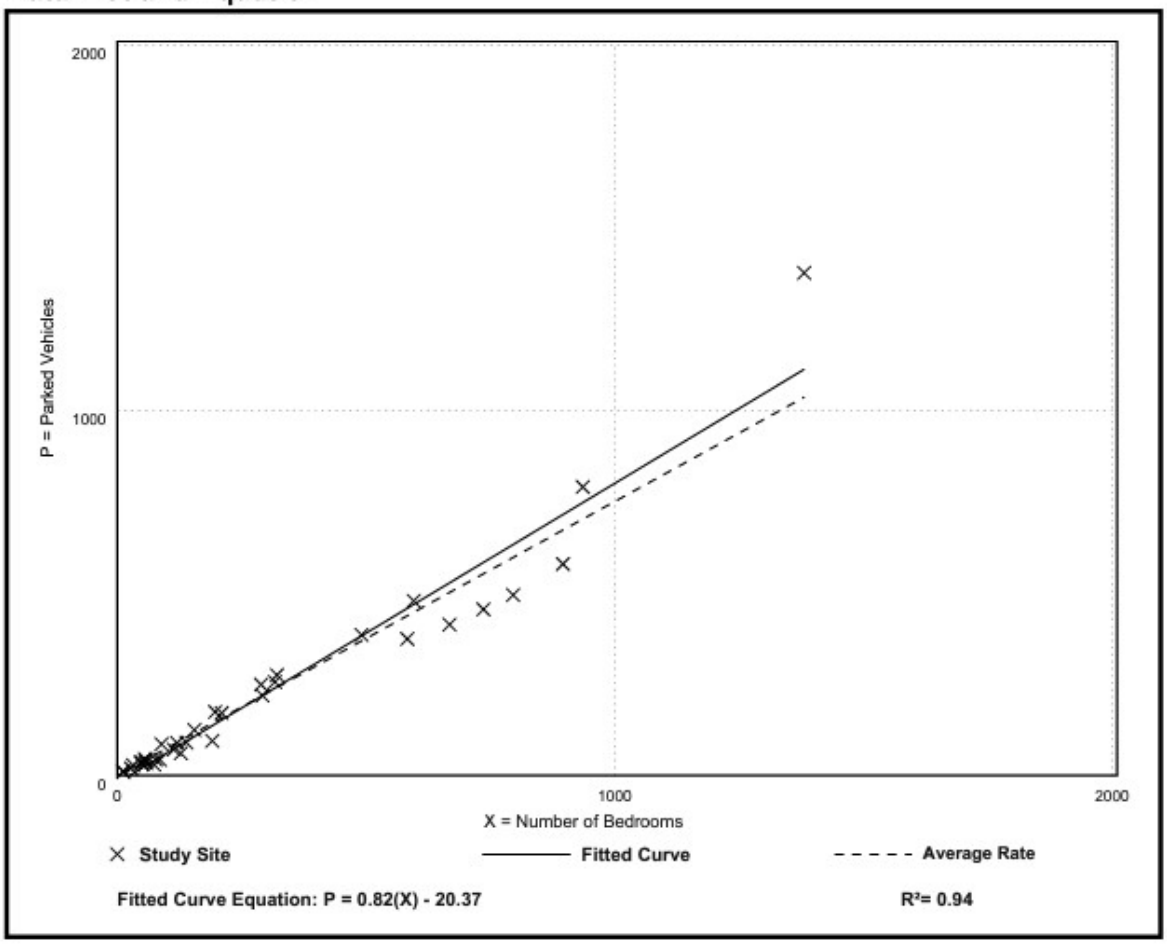
Multifamily Housing (Mid-Rise)
(221)

Peak Period Parking Demand vs: Bedrooms
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban (no nearby rail transit)
Peak Period of Parking Demand: 10:00 p.m. - 5:00 a.m.
Number of Studies: 35
Avg. Num. of Bedrooms: 294

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.75	0.41 - 1.00	0.65 / 0.87	0.70 - 0.80	0.15 (20%)

Data Plot and Equation



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January 24, 2022

To: **Michael Suel, DR Horton**

From: **Vernon Swing, PE**

Re: **DRAFT Traffic Analysis Memorandum – Oak Creek Single Family, Clover Ridge Apartments, and Clover Field Apartments, Chaska, MN**

Per your request, S² Traffic Solutions, LLC has conducted a traffic analysis for the three proposed developments – Oak Creek single family homes, Clover Ridge Apartments, and Clover Field Apartments in the City of Chaska, MN. This study considered the individual impact associated with the single family homes and the separate, combined impact of the apartment projects, as well as the total impact of all three projects. The proposed development projects are all located as follows: Clover Ridge Apartments is located on the west side of Clover Ridge Rd, south of Pioneer Trail and north of the railroad tracks; Clover Field Apartments is located on the west side of Clover Ridge Rd, south of the railroad tracks and north of the Clover Ridge Rd/Clover Preserve Dr roundabout; Oak Creek is located to the south of the railroad tracks, west of Clover Ridge Rd, and west of Clover Preserve Dr. The Oak Creek development will include 103 single family homes and will generally be accessed via an extension of Clover Preserve Ln on the south side, and via an extension of Romeo Ct on the north side. Clover Field apartments will consist of an apartment building with 162 units and will be accessed directly from Clover Ridge Rd on the south and via a driveway to the extension of Romeo Ct on the north side. Clover Ridge apartments will consist of an apartment building with 120 units and will be accessed from a single driveway from Clover Ridge Rd. **Figure 1**, Vicinity Map, and **Figures 2a, 2b, and 2c**, are the Site Plans for the proposed developments, depicting the location and site plans.

This memorandum documents the existing conditions, the anticipated site-generated traffic for the three developments, the distribution of the development traffic, and reviews the traffic operations at the following intersections for the year after completion of the development, 2025:

- Pioneer Trail and Clover Ridge Dr
- Clover Ridge Dr and Romeo Ct
- Clover Ridge Dr and Clover Preserve Dr
- Clover Ridge Dr and Hundertmark Rd W
- Clover Ridge Dr and Clover Field Dr
- Clover Ridge Dr and Schoolmaster Dr
- Clover Preserve Dr and Hundertmark Rd W
- Clover Preserve Dr and Clover Field Dr
- Clover Preserve Dr and Schoolmaster Dr
- Clover Preserve Dr and Clover Preserve Ln
- Clover Preserve Dr and Sophia Dr
- Clover Ridge Apartment access and Clover Ridge Dr
- Clover Field Apartment access and Clover Ridge Dr

Existing Conditions

Table 1 below details the existing conditions of the roadways providing direct access to the three proposed developments in Chaska, MN.

Table 1
Roadway Description

Roadway	Functional Class	Typical Section	Posted Speed	AADT (Year)
Pioneer Trail (CR 14)	A Minor Expander	3-Lane Undivided Urban	45 mph	3300 (2019)
Clover Ridge Dr	Minor Collector	2-Lane Undivided Urban	30 mph	1,050-2,500 (2021)*
Romeo Ct	Local	2-Lane Undivided Urban	30 mph	275 (2021)*
Hundertmark Rd W	Local/Major Collect	2-Lane Undivided Urban	30 mph	1,100 (2021)*
Clover Preserve Dr	Local	2-Lane Undivided Urban	30 mph	200-800 (2021)*
Sofia Dr	Local	2-Lane Undivided Urban	30 mph	275 (2021)*
Clover Preserve Ln	Local	2-Lane Undivided Urban	30 mph	330 (2021)*
Clover Field Dr	Local	2-Lane Undivided Urban	30 mph	600 (2021)*
Schoolmaster Dr	Local	2-Lane Undivided Urban	30 mph	1,000 (2021)*

* Based on 2021 PM peak hour turning movement counts

The traffic control and geometrics of the study area intersections for the future analysis year 2025 are shown on **Figure 3**, Study Area Geometrics.

Existing Traffic Volumes

Existing traffic volumes from the study area intersections were obtained from traffic counts conducted on Wednesday December 15, 2021. The AM peak hour was found to occur between 7:15 to 8:15 AM and the PM peak hour was found to occur between 4:00 to 5:00 PM (See **Figure 4**, Existing Peak Hour Volumes).

Future Conditions

To quantify the impacts of a development on the surrounding roadway system, it is necessary to first determine traffic conditions that would be present on the roadway system without the inclusion of the proposed development. The anticipated construction completion date for the three projects is 2024, thus year 2025 was selected for analysis so as to compare traffic conditions after initial traffic patterns to and from the developments have become established. To determine the future traffic conditions a review of the latest City of Chaska Comprehensive Transportation Plans indicates the traffic in the area is expected to increase by three percent per year as land development occurs. This growth rate is based on the traffic analysis zone forecast completed for the City's 2040 Transportation Plan, particularly for those zones adjacent to the Proposed Project. For this study, three separate future scenarios were addressed. In the first scenario it was assumed only the Oak Creek development will occur, in the second scenario it was assumed both apartment developments occur but no single family, and in the third scenario it was assumed all three developments will occur.

Trip Generation and Distribution

The volume of vehicle trips generated by the three developments has been estimated for the weekday AM and PM peak hours and on a daily basis using the data and methodology described in the ***Trip Generation Manual***[1]. Table 2 summarizes the trip generation estimates.

Table 2 - Trip Generation

Land Use	Type	Block No.	Land Use Code	Size	Trips Generated:				
					AM peak		PM Peak		Weekday
					Enter	Exit	Enter	Exit	ADT
Single Family Housing	Residential	1	210	100 units	18	52	59	35	943
Mid-Rise Apartment/Suburban	Residential	2	221	162 units	14	44	43	28	881
Mid-Rise Apartment/Suburban	Residential	2	221	120 units	10	33	32	21	653
Totals - Gross					43	129	135	83	2,477
					172		218		

* Per ITE's Trip Generation Manual, 11th Edition.

As shown in Table 1, the Oak Creek single family homes development will generate 70 new trips (18 entering and 52 exiting) during the morning traffic peak hour, 94 new trips (59 entering and 35 exiting) during the evening traffic peak hour and 943 daily trips. Similarly, the apartment projects will generate 101 new trips (24 entering and 77 exiting) during the morning traffic peak hour, 124 new trips (75 entering and 49 exiting) during the evening traffic peak hour, and 1,534 daily trips. It is noted that this estimate could be conservative as no reductions were taken for multimodal trips (walking, bicycling, transit) from the surrounding area or current work from home conditions.

The new trips have been assigned to the surrounding roadways according to the existing and anticipated traffic patterns. It is noted, the traffic associated with the apartment projects is expected favor Pioneer Trail to gain access to the region (approximately 85 percent) with less traffic (15 percent) utilizing Hundertmark Rd. The traffic from Oak Creek is generally divided between Pioneer Trail, Hundermark Rd, Clover Field Dr, and Schoolmaster Dr, with approximately 40 percent utilizing Pioneer Trail, 35 percent using Hundertmark Rd, 17 percent using Clover Field Dr, and 8 percent using Schoolmaster Dr.

As mentioned above, just the new trips associated with the Oak Creek were assigned to 2025 roadway traffic conditions and analyzed to determine the impact of just the single family homes development. Also, the just new trips associated with the Clover Ridge apartments and Clover Creek apartments were assigned to the 2025 roadway traffic conditions and analyzed to determine the impact of just the apartment developments. **Figures 5** and **6** illustrate the two separate trip assignments, and **Figures 7, 8,** and **9** illustrate the Build conditions for the Oak Creek development alone, the Build condition for the apartment projects alone, and the combined total of all three development, respectively.

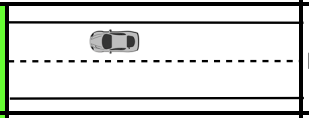
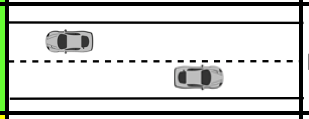
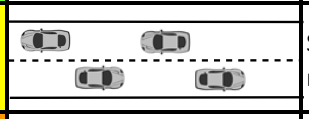
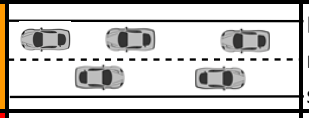
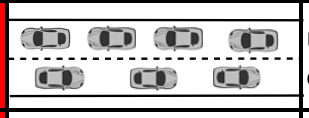
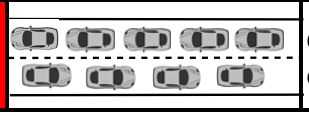
Traffic Operations

The operating conditions of transportation facilities, such as roadways, traffic signals, roundabouts and stop-controlled intersections, are evaluated based on the relationship of the theoretical capacity of a facility to the actual traffic volume on that facility. Various factors affect capacity including travel speed, roadway geometry, grade, number of travel lanes, and intersection control. The current standards for evaluating capacity and operating conditions are contained in ***Highway Capacity Manual***[2]. The

[1] Trip Generation Manual, Institute of Transportation Engineers (ITE), 11th Edition

[2] Highway Capacity Manual (HCM), Transportation Research Board, 6th Edition

procedures describe operating conditions in terms of driver delay represented as a Level of Service (LOS). Operations are given letter designations with "A" representing the best operating conditions and "F" representing the worst. Generally, level of service “D” represents the threshold for acceptable overall intersection operating conditions during a peak hour. The Chart below summarizes the level of service and delay criteria for signalized and unsignalized intersections.

Level of Service		Description	Delay (sec)	
			Signalized	Unsignalized/ Roundabout
A		Primarily free-flow operation.	0-10	0-10
B		Reasonably unimpeded operation.	>10-20	>10-15
C		Stable operation. The ability to maneuver is more restricted than LOS B.	>20-35	>15-25
D		Less stable operation. Small increases in flow may cause large increases in delay and reduced speeds.	>35-55	>25-35
E		Unstable operation. Low speeds and considerable delay.	>55-80	>35-50
F		Congested operation. High delay and extensive queuing.	>80	>50

For side street stop-controlled intersections special emphasis is given to providing an estimate for the level of service of the minor approaches. Traffic operations at an unsignalized intersection with side street stop-control can be described two ways. First, consideration is given to the overall intersection level of service. This takes into account the total number of vehicles entering the intersection and the capability of the intersection to support these volumes. Second, it is important to consider the delay on the minor approaches, since the mainline does not have to stop. It is common for intersections with higher mainline traffic volumes to experience increased levels of delay and poor level of service on the side streets.

A final fundamental component of operational analyses is a study of vehicular queuing, or the line of vehicles waiting to pass through an intersection. An intersection can operate with an acceptable Level of Service, but if queues from the intersection extend back to block entrances to turn lanes or accesses to adjacent land uses, unsafe operating conditions could result. In this report, the Industry Design Standard 95th percentile queue length is used. The 95th Percentile Queue Length refers to that length of vehicle queue that has only a five-percent probability of occurring during an analysis hour.

This study has utilized the industry current Synchro/SimTraffic software package (11th Edition) to analyze the Existing conditions and the 2025 Build conditions for both the AM and PM peak hours. It is noted, the reported results are from the aggregate of 10 SimTraffic simulations which use a random number

generator to seed the network with vehicles. These results reflect dynamic conditions and are more accurate than the results of the static analysis reported by Synchro. Due to the random number generator results can sometimes show slightly better operations on minor movements under higher traffic conditions when the intersections are operating well. This can be seen when delays and queues noted in the Build Scenario are slightly less than the No-Build Scenario.

Tables 3 on the following page summarizes the results of the analyses for the existing, and three 2025 Build scenarios (assumes 3.0 percent annual growth in traffic from existing conditions and adds trips estimated for the various developments). The results shown in the indicate the overall level of service at all the studied intersection is and will be LOS A, with individual movements at LOS B or better for all of the studied scenarios. The inclusion of site-generated traffic does slightly increase delays and queuing, but operations remain acceptable and no development related mitigation measures are recommended. In other words, the roadways supplying direct and indirect access have sufficient reserve capacity for these projects and others.

Conclusion

In conclusion, the proposed developments have appropriate access to the sites and to the surrounding roadway network. The traffic operational analysis indicates there is available capacity on the roadways surrounding the site to accommodate site-generated traffic.

Please contact Vernon Swing at vswingtraffic@gmail.com with any questions.

Attachments: Table 3; Figures 1-9
(Appendices with Traffic Counts, Trip Generation Data, Synchro/Simtraffic Worksheets are available upon request.)

Table 3

LOS (Delay in sec) plus Vehicle Queuing in Feet

(Lower case letter designates Unsignalized intersection; italics designates Roundabout)

Intersection No.	Existing AM	AM Q	Existing PM	PM Q	Single Family AM	SF AM Q	Single Family PM	SF PM Q	Multi-Family AM	MF AM Q	Multi-Family PM	MF PM Q	Both Build AM	BB AM Q	Both Build PM	BB PM Q
5	a (2.3)		a (1.7)		a (2.8)		a (2.0)		a (2.7)		a (2.1)		a (2.8)		a (2.0)	
Worst Movement	sbt a (7.4)	SB 42	sbt a (9.2)	SB 37	sbt a (6.8)	SB 44	sbt a (8.4)	NB 43	nbt a (9.6)	NB 52	nbt b (10.1)	NB 47	sbt a (7.3)	NB 52	sbt b (10.4)	NB 45
10	a (0.5)		a (0.6)		a (0.6)		a (0.8)		a (0.7)		a (0.7)		a (1.3)		a (0.9)	
Worst Movement	wbr a (2.2)	WB 37	wbl a (5.5)	WB 27	ebl a (4.2)	EB 31	ebl a (4.8)	EB 34	wbl a (7.5)	WB 35	wbl a (4.1)	WB 32	wbl a (7.5)	EB 44	wbl a (6.0)	EB 36
15	*a (2.6)*		*a (2.4)*		*a (2.7)*		*a (2.4)*		*a 2.8)*		*a (2.6)*		*a (2.9)*		*a (2.7)*	
Worst Movement	*sbt a (3.0)*	*WB 10*	*wbt a (2.5)*	-	*nbt a (3.1)*	-	*ebt a (3.4)*	-	*ebt a (3.3)*	*EB 14*	*wbt a (3.4)*	-	*sbt a (3.2)*	*NB 10*	*nbr a (3.8)*	*SB 10*
20	*a (3.1)*		*a (2.9)*		*a (3.1)*		*a (3.0)*		*a (3.1)*		*a (3.1)*		*a (3.2)*		*a (3.1)*	
Worst Movement	*nbt a (4.9)*	*NB 33*	*wbt a (3.7)*	*WB 38*	*nbl a (4.3)*	*NB 42*	*sbt a (3.4)*	*EB 20*	*sbt a (3.6)*	*NB 48*	*nbt a (4.0)*	*WB 24*	*nbt a (4.5)*	*NB 34*	*nbl a (3.7)*	*EB 23*
25	a (1.1)		a (0.8)		a (1.1)		a (1.1)		a (1.1)		a (1.1)		a (1.0)		a (1.4)	
Worst Movement	ebl a (6.2)	EB 47	wbt a (5.9)	EB 36	wbl a (5.7)	EB 50	ebl a (6.4)	EB 39	wbt a (5.8)	EB 44	wbl a (6.2)	WB 30	ebl a (6.5)	EB 48	wbl a (6.7)	EB 43
30	a (1.6)		a (1.7)		a (1.7)		a (1.8)		a (1.8)		a (2.1)		a (1.8)		a (1.8)	
Worst Movement	ebt a (6.8)	EB 48	ebt a (7.3)	WB 48	wbt a (5.8)	WB 46	ebt a (8.0)	EB 39	ebt a (7.1)	WB 42	ebt a (9.2)	WB 63	ebt a (6.7)	WB 52	ebt a (7.0)	WB 43
35	a (0.8)		a (2.8)		a (1.1)		a (2.2)		a (1.2)		a (2.8)		a (1.3)		a (2.5)	
Worst Movement	wbl a (4.3)	WB 34	wbl a (4.4)	WB 44	wbl a (4.0)	WB 43	wbl a (4.5)	WB 52	wbl a (4.1)	WB 43	wbl a (4.4)	WB 53	wbl a (4.3)	WB 44	wbl a (4.7)	WB 58
40	a (2.4)		a (1.9)		a (2.1)		a (3.1)		a (2.6)		a (2.6)		a (2.9)		a (3.3)	
Worst Movement	sbt a (5.1)	SB 35	sbt a (4.9)	SB 40	sbt a (5.4)	SB 37	sbt a (5.5)	SB 43	sbt a (6.1)	SB 46	sbt a (5.0)	SB 44	sbt a (5.7)	SB 46	sbt a (5.6)	SB 48
45	a (0.6)		a (2.9)		a (0.9)		a (3.3)		a (1.6)		a (4.6)		a (2.6)		a (3.0)	
Worst Movement	sbt a (1.9)	-	sbl a (6.0)	SB 27	sbl a (5.7)	SB 23	sbl a (6.5)	SB 39	sbl a (5.8)	SB 43	sbr a (6.8)	SB 37	sbl a (5.6)	SB 34	sbl a (5.9)	SB 41
50	a (2.1)		a (1.2)		a (2.1)		a (1.6)		a (1.7)		a (1.2)		a (2.2)		a (1.7)	
Worst Movement	ebl a (4.5)	EB 47	ebl a (4.3)	EB 32	ebl a (4.3)	EB 42	ebl a (4.2)	EB 50	ebl a (4.8)	EB 44	ebl a (4.5)	EB 42	sbl a (4.4)	EB 48	ebl a (4.7)	EB 50
55	a (1.5)		a (0.9)		a (1.2)		a (1.0)		a (1.5)		a (0.9)		a (1.9)		a (1.1)	
Worst Movement	ebl a (4.8)	EB 36	ebl a (3.9)	EB 24	ebl a (4.3)	EB 37	ebl a (4.3)	EB 30	ebl a (4.0)	EB 44	ebl a (3.9)	EB 25	ebl a (4.6)	EB 43	ebl a (4.2)	EB 34
60	N/A		N/A		N/A		N/A		a (1.1)		a (0.9)		a (0.9)		a (0.7)	
Worst Movement		-		-		-		-	ebl a (5.0)	EB 44	ebl a (5.2)	EB 43	ebl a (5.2)	EB 46	ebl a (5.2)	EB 38
65	N/A		N/A		N/A		N/A		a (1.2)		a (0.8)		a (1.0)		a (0.9)	
Worst Movement		-		-		-		-	ebl a (4.6)	EB 46	ebl a (4.7)	EB 38	ebl a (4.2)	EB 45	ebl a (5.0)	EB 42

Intersections:

5	Pioneer Trail and Clover Ridge Dr
10	Clover Ridge Dr and Romeo Ct
15	Clover Ridge Dr and Clover Preserve Dr
20	Clover Ridge Dr and Hundertmark Rd W
25	Clover Ridge Dr and Clover Field Dr
30	Clover Ridge Dr and Schoolmaster Dr
35	Clover Preserve Dr and Hundertmark Rd W
40	Clover Preserve Dr and Clover Field Dr
45	Clover Preserve Dr and Schoolmaster Dr
50	Clover Preserve Dr and Clover Preserve Ln
55	Clover Preserve Dr and Sophia Dr
60	Clover Ridge Apartment access and Clover Ridge Dr
65	Clover Field Apartment access and Clover Ridge Dr



Figure 1 - Vicinity Map

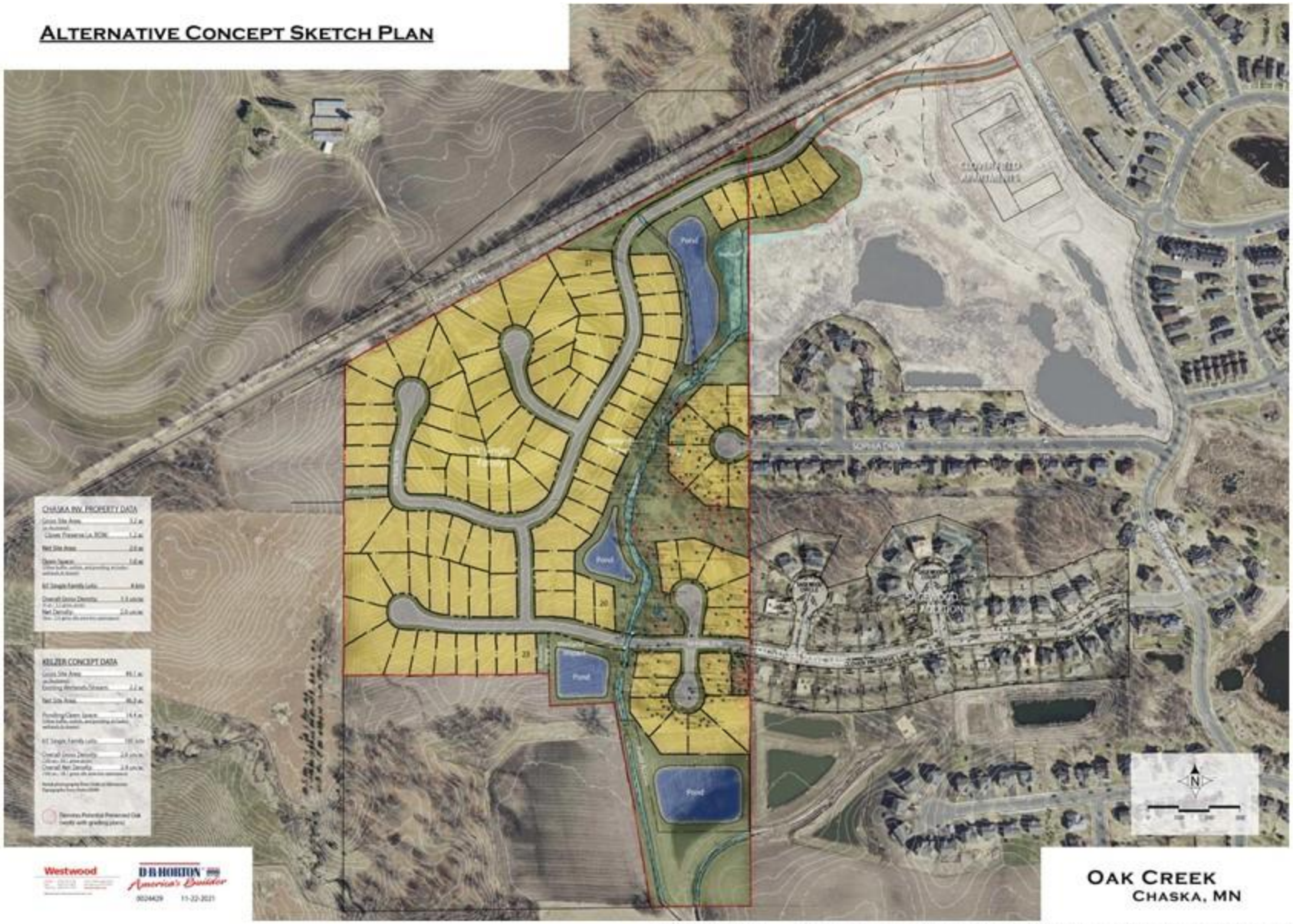


Figure 2A - Oak Creek Residential Site Plan (By Others)

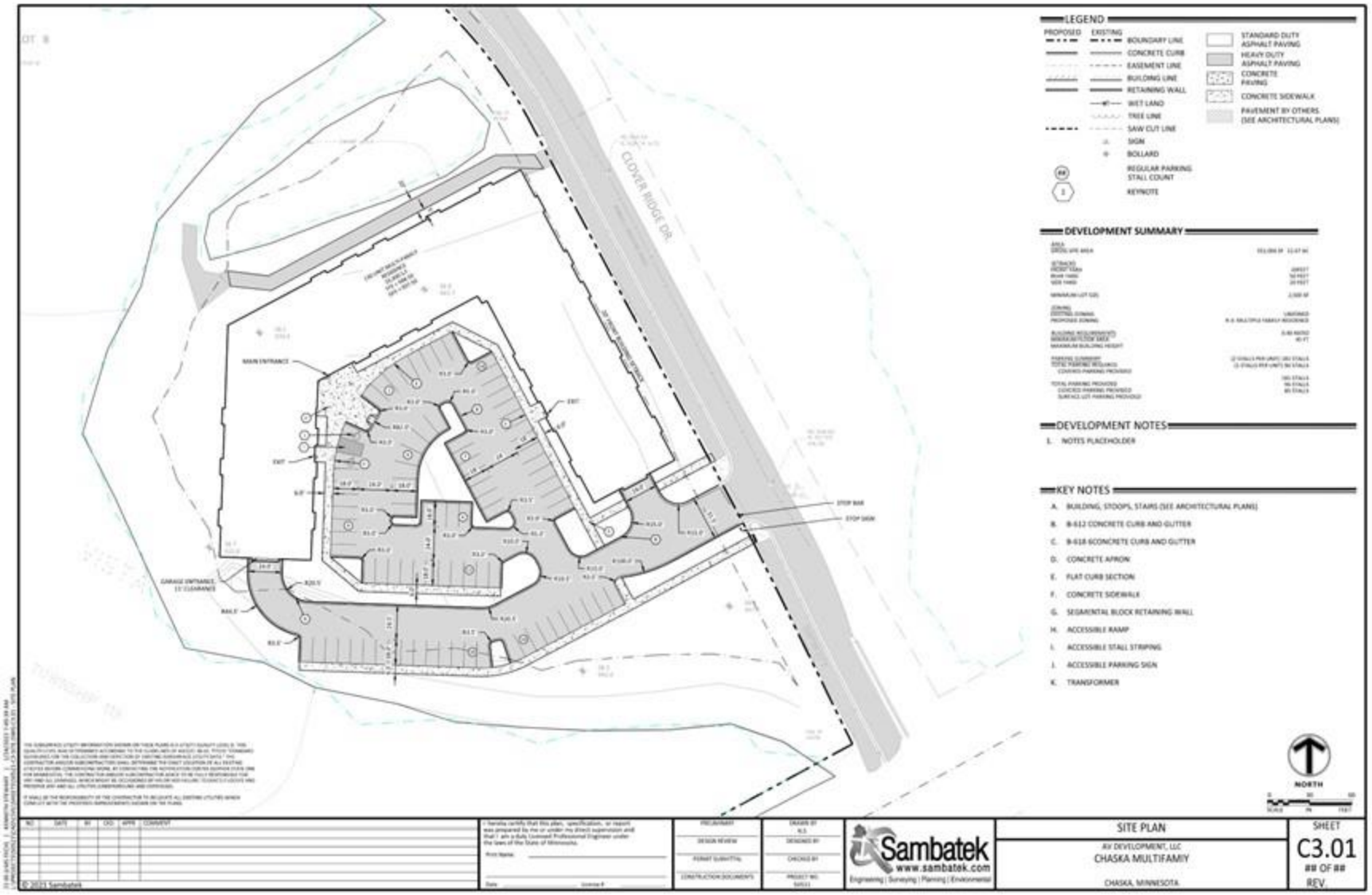


Figure 2B - Clover Ridge Apartments Site Plan (By Others)

SITE CONCEPT #01

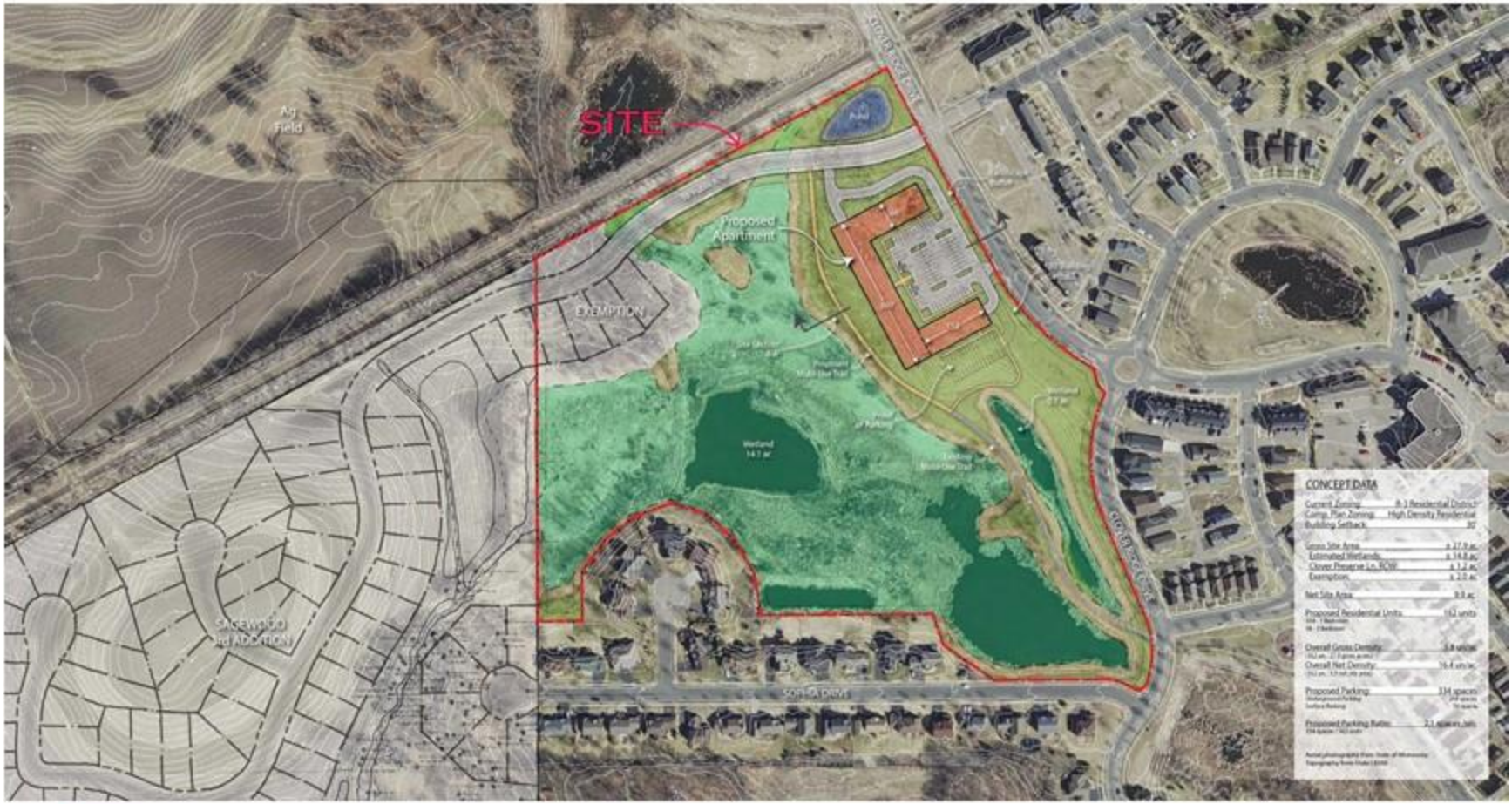


Figure 2C - Clover Field Apartments Site Plan (By Others)

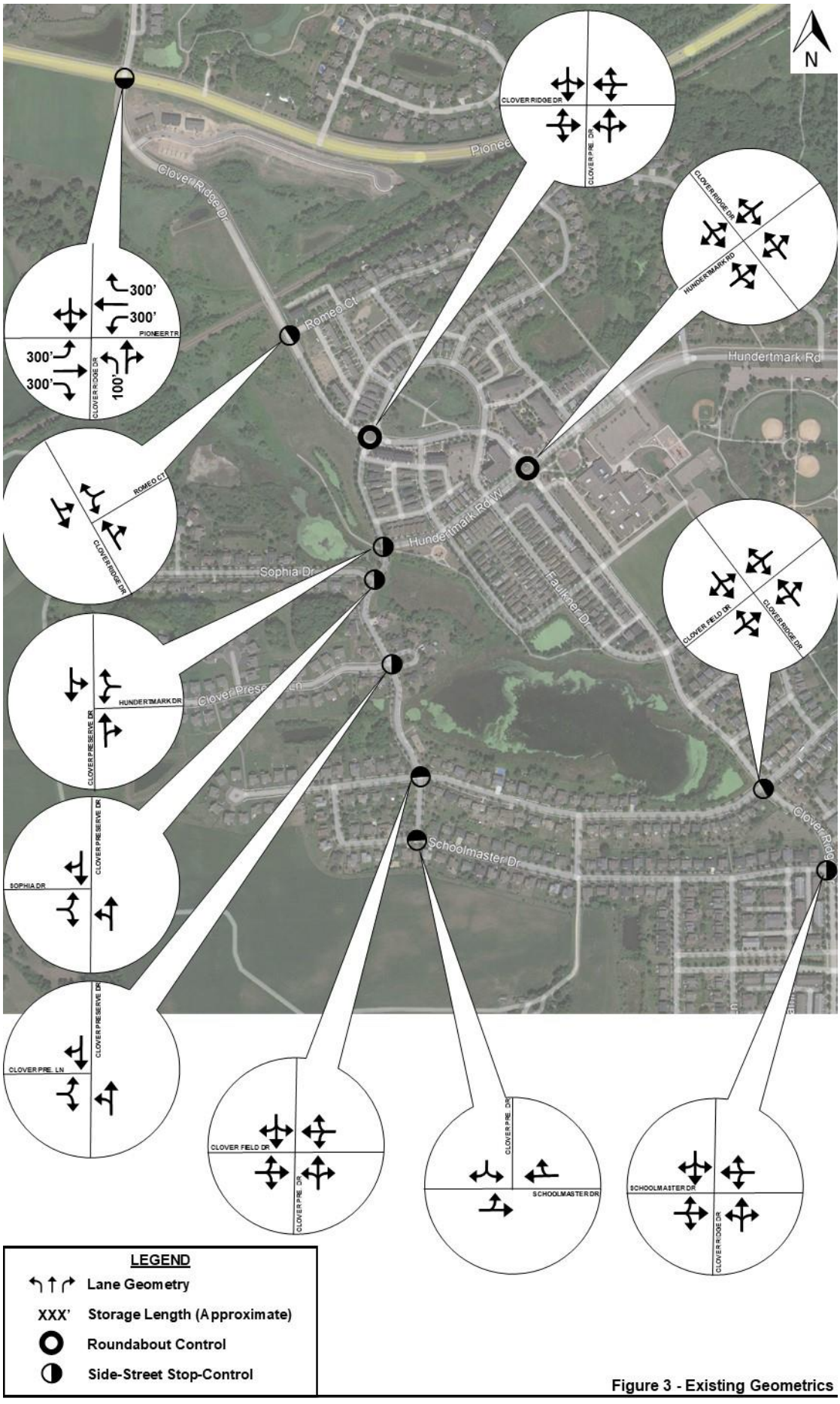


Figure 3 - Existing Geometrics

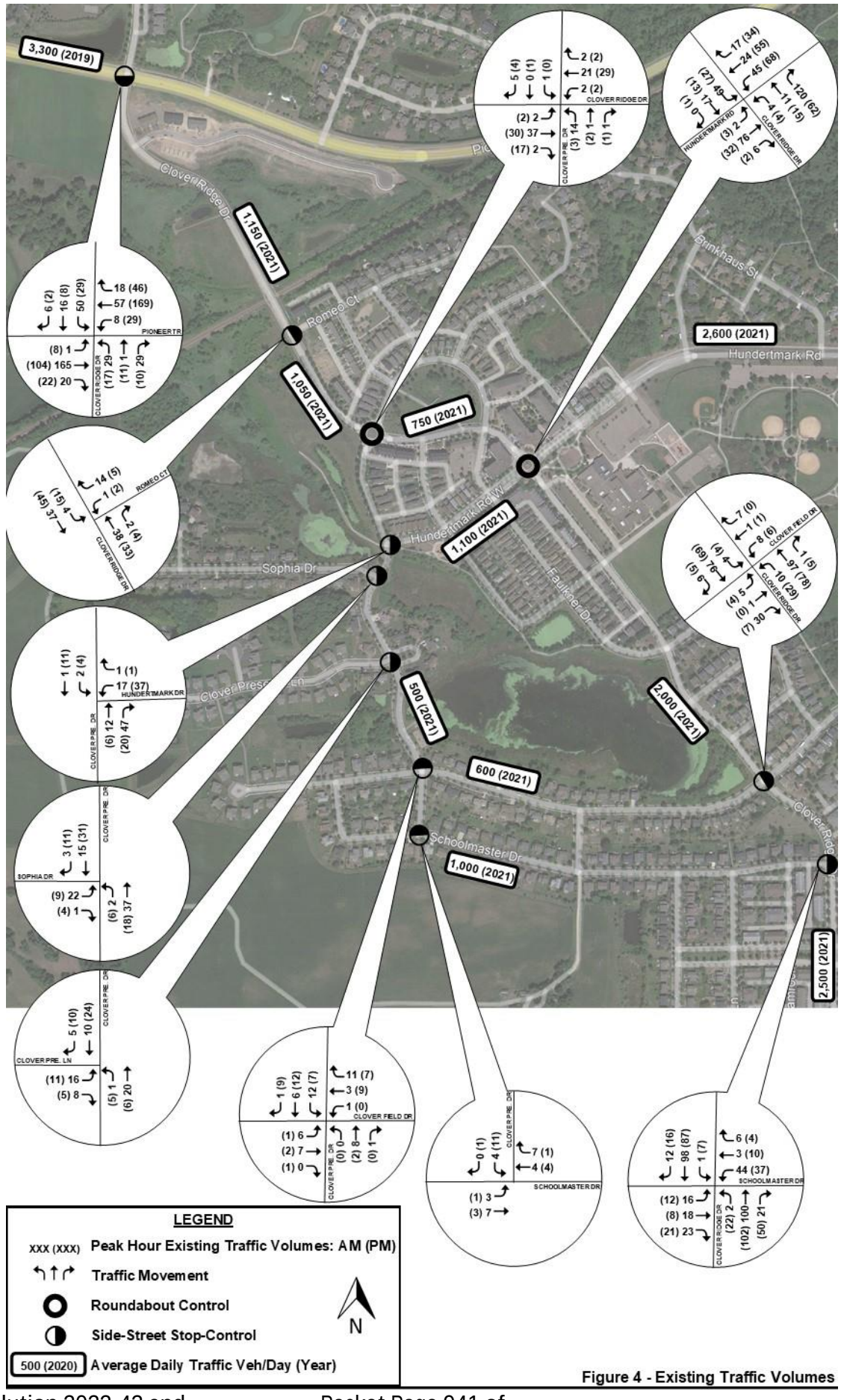


Figure 4 - Existing Traffic Volumes

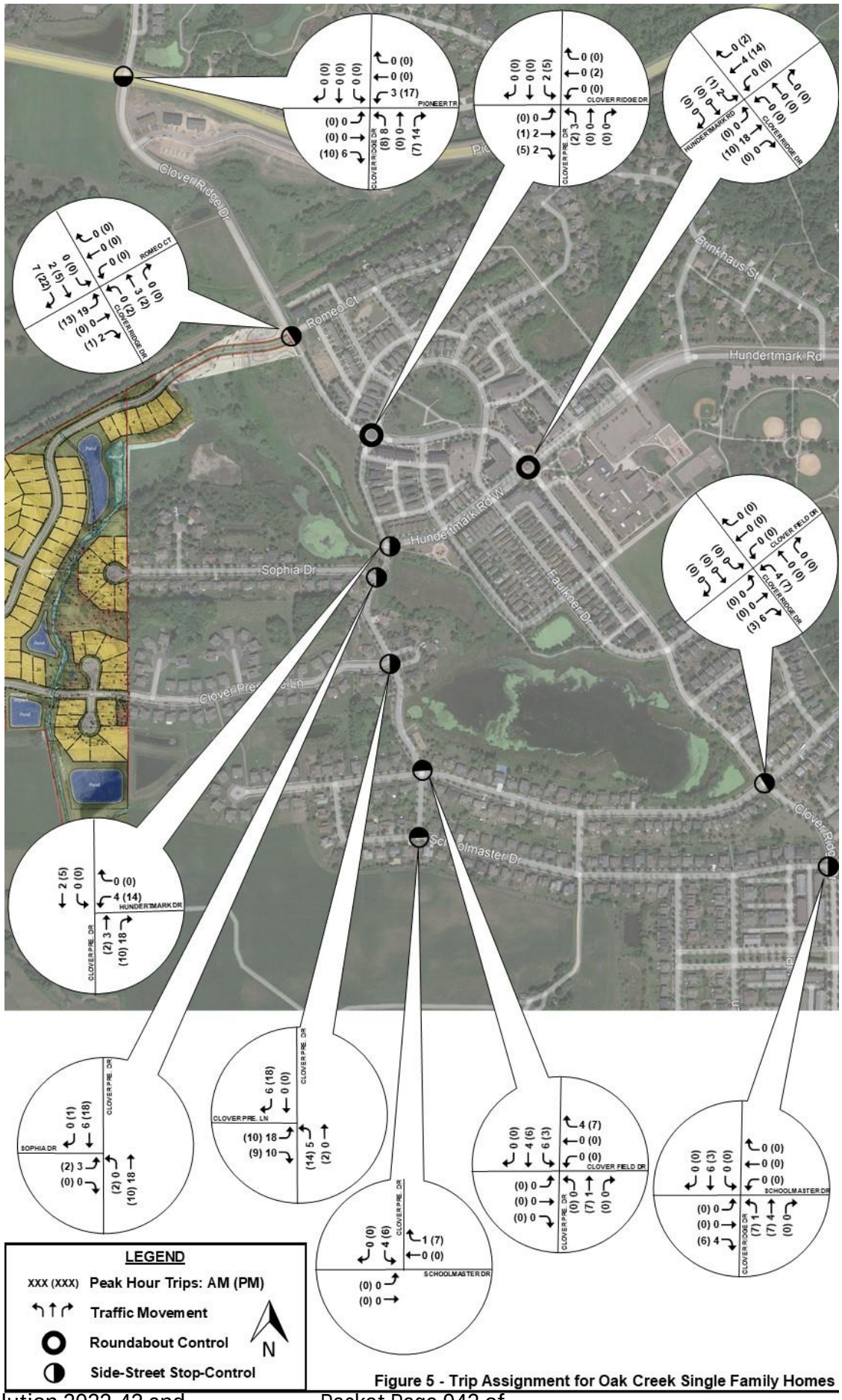


Figure 5 - Trip Assignment for Oak Creek Single Family Homes

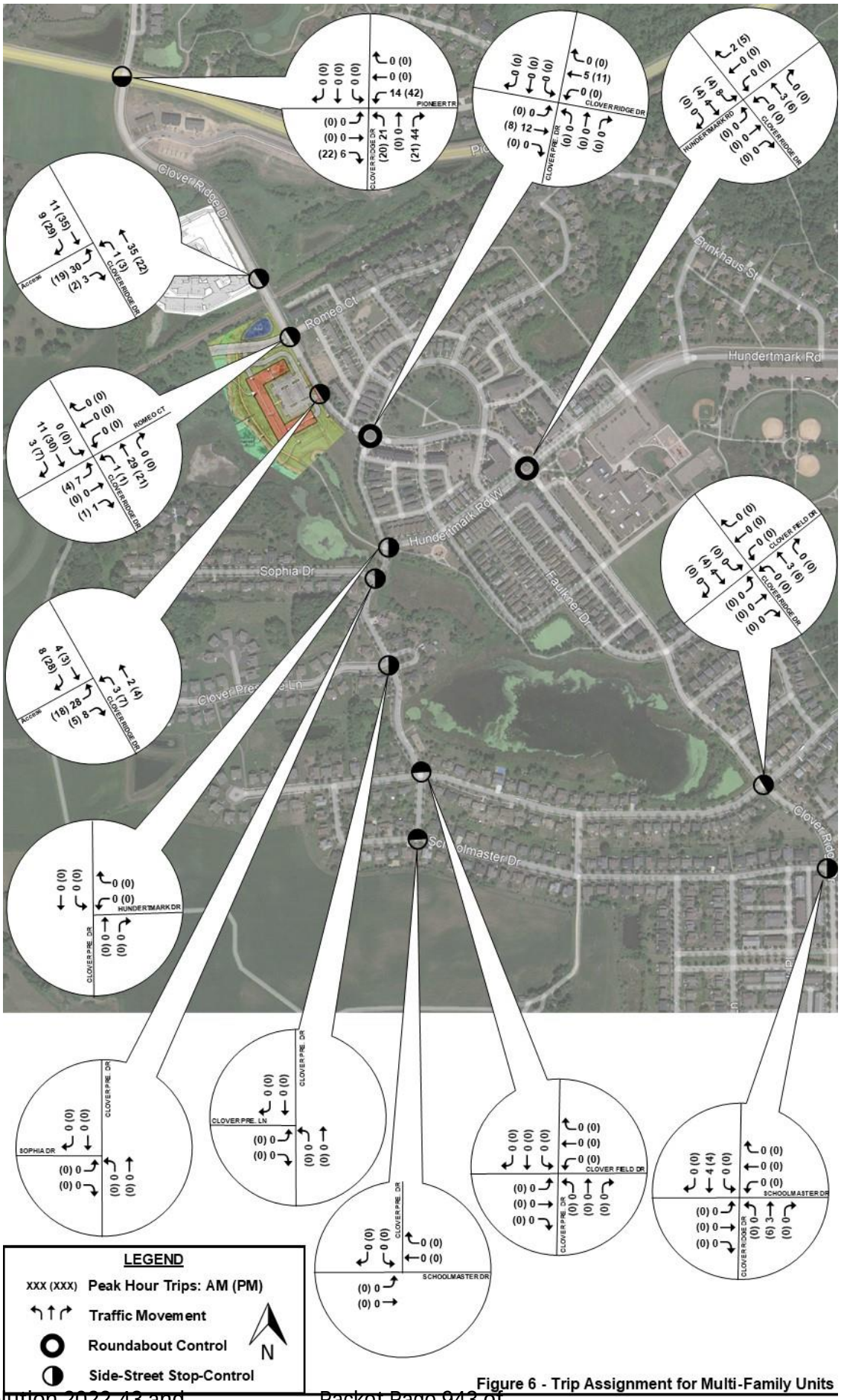


Figure 6 - Trip Assignment for Multi-Family Units

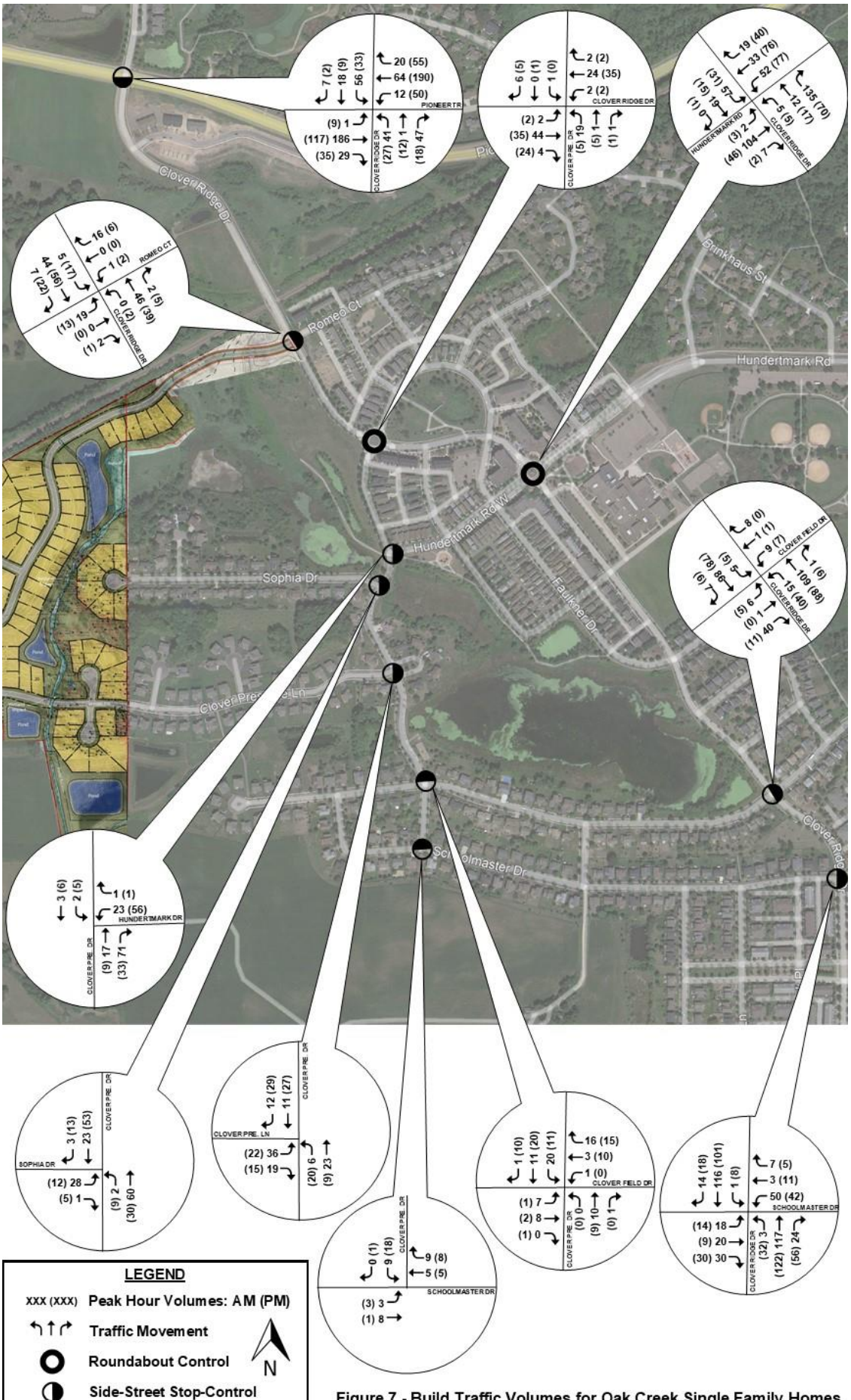


Figure 7 - Build Traffic Volumes for Oak Creek Single Family Homes

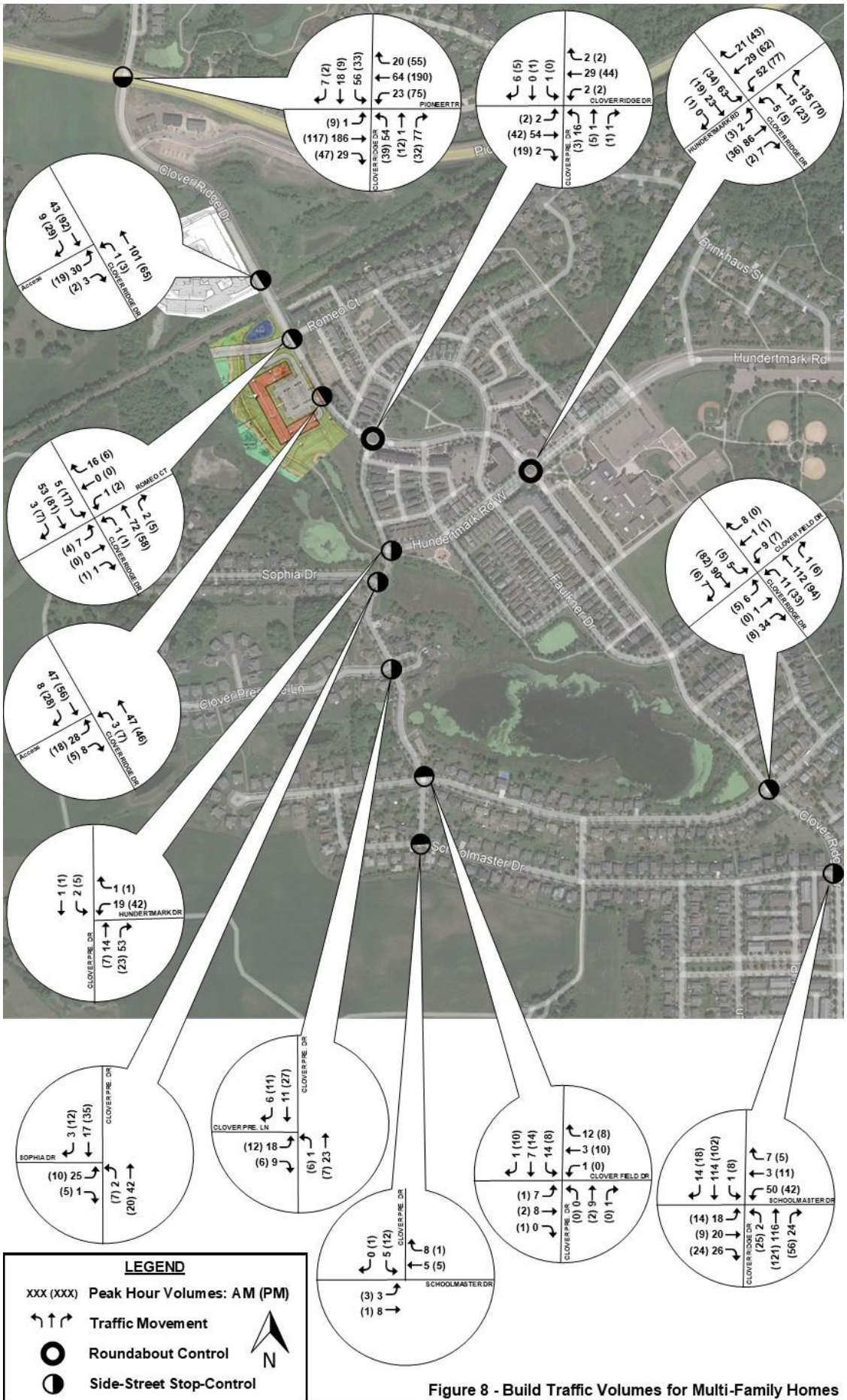


Figure 8 - Build Traffic Volumes for Multi-Family Homes

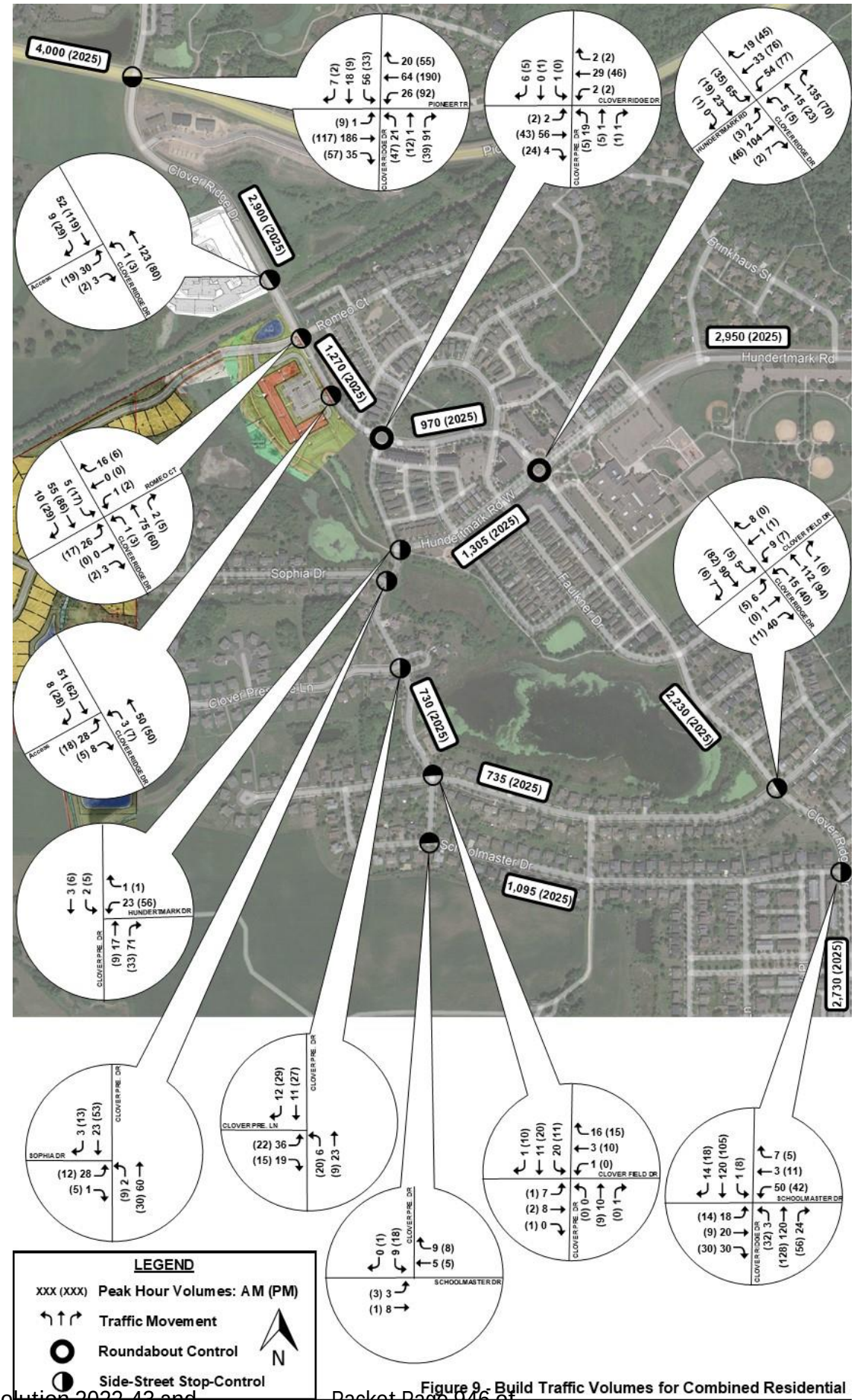


Figure 9 - Build Traffic Volumes for Combined Residential

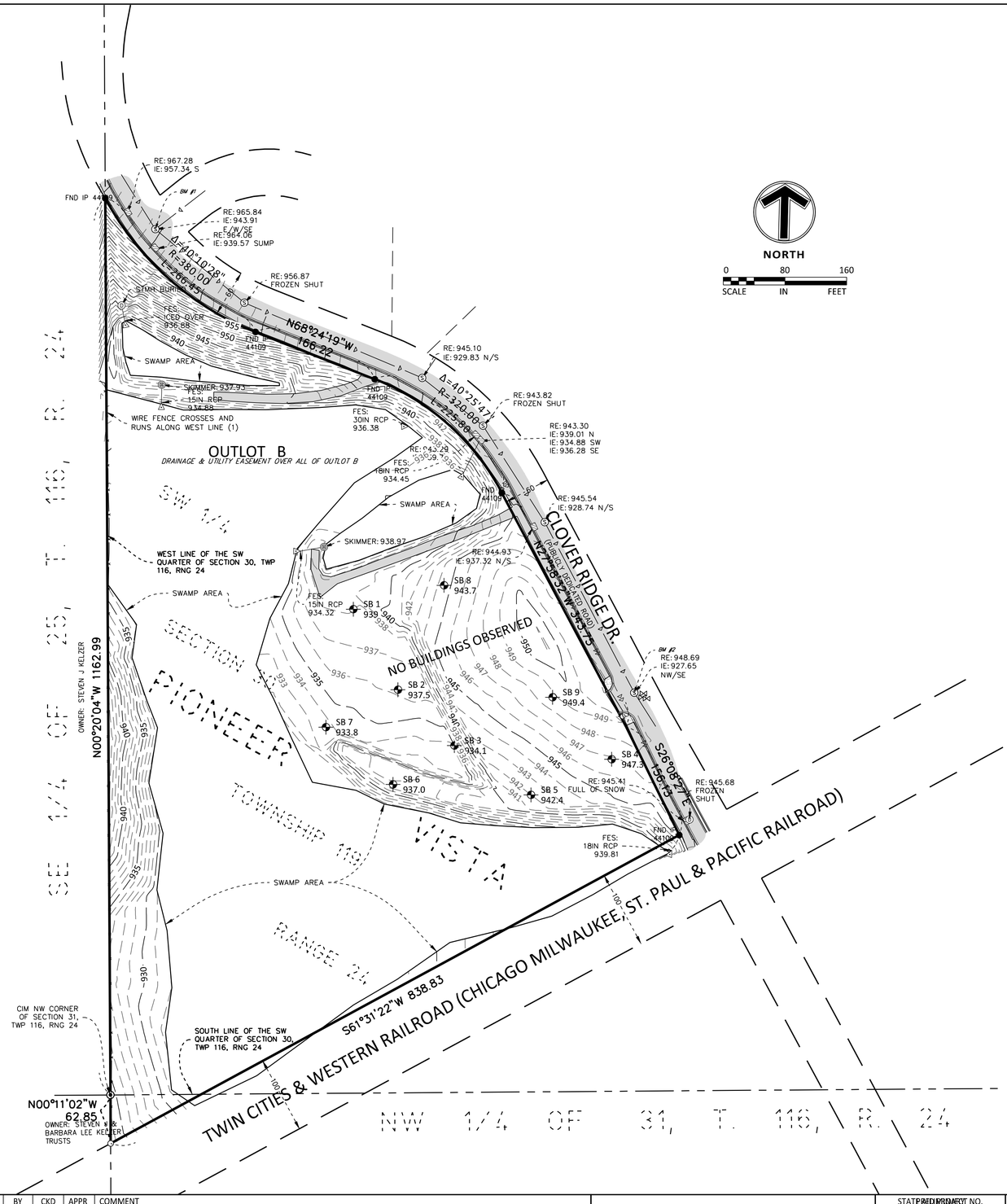


This map was created using Carver County's Geographic Information Systems (GIS), it is a compilation of information and data from various City, County, State, and Federal offices. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Carver County is not responsible for any inaccuracies contained herein.

Map Date: 1/31/2022

EXISTING CONDITIONS SURVEY

A SURVEY OF LANDS LOCATED IN THE SW 1/4 OF SECTION 30 AND THE NW 1/4 OF SECTION 31
IN TWP. 119, RNG. 24, CITY OF CHASKA, CARVER COUNTY, MINNESOTA



PROPERTY SUMMARY

1. SUBJECT PROPERTIES ADDRESS IS UNASSIGNED, ITS PROPERTY IDENTIFICATION NUMBER IS 30.5000.560.
2. THE GROSS AREA OF THE SUBJECT PROPERTY IS 11.9851 Acres or 522,071 SQUARE FEET.
3. THE SUBJECT PROPERTY IS ZONED OPEN DEVELOPMENT, PER CITY OF CHASKA ZONING MAP ON THE CITY OF CHASKA WEBSITE ACCESSED 01/05/2021.

SURVEY NOTES

1. THE BEARING SYSTEM IS BASED ON THE CARVER COUNTY COORDINATE SYSTEM, NAD85 (1986 ADJ.)
2. FIELD WORK WAS COMPLETED ON 01/02/2022
3. THIS SURVEY WAS PERFORMED UNDER THE COVER OF SIGNIFICANT SNOW. THE SURVEYOR MAKES NO GUARANTEE THAT ALL IMPROVEMENTS ARE SHOWN HEREON.

BENCHMARKS

1. THE VERTICAL DATUM IS BASED ON NAVD88. THE ORIGINATING BENCH MARK IS MNDOT TOWNGOLF, REFERENCED FROM THE MNDOT GEODETIC DATABASE.

BENCHMARK #1 SANITARY MANHOLE N. END OF SITE	ELEV.=965.84
BENCHMARK #2 SANITARY MANHOLE S. END OF SITE	ELEV.=948.69

LEGEND

FOUND MONUMENT	WATERMAIN
SET MONUMENT MARKED	SANITARY SEWER
ELECTRIC METER	STORM SEWER
LIGHT	FLARED END SECTION
AIR CONDITIONER	TELEPHONE PEDESTAL
GUY ANCHOR	ELECTRIC TRANSFORMER
HANDICAP STALL	GAS METER
UTILITY POLE	OVERHEAD WIRE
POST	CHAIN LINK FENCE
SIGN	IRON FENCE
	WIRE FENCE
	WOOD FENCE
	EASEMENT LINE
	SETBACK LINE
	RESTRICTED ACCESS
	CONCRETE CURB
	BUILDING LINE
	BUILDING CANOPY
	STANDARD DUTY ASPHALT PAVING
	BITUMINOUS SURFACE
	CONCRETE SURFACE
	LANDSCAPE SURFACE

NO	DATE	BY	CKD	APPR	COMMENT

Print Name: _____

Date _____ License # _____

PRELIMINARY PLAT
STATE PROJECT NO.
STAGE REVIEW
COUNTY PROJECT NO.
CONSTRUCTION DOCUMENTS

DRAWN BY DJT
DESIGNED BY
CHECKED BY JCW
PROJECT NO. 50521

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EXISTING CONDITONS
AV DEVELOPMENT, LLC
CHASKA MULTIFAMILY
1/05/2021
CHASKA, CARVER COUNTY, MINNESOTA

SHEET
##
OF
REV. #

P:\PROJECTS\50521\CAD\SURVEY\SHEETS\50521-EXCON.DWG | 1/5/2022 10:21:56 AM | DILLON TEWS, LSIT (MN) | DILLON TEWS (LMS TECH)

PIONEER VISTA FIRST ADDTION

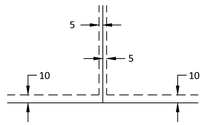
PRELIMINARY PLAT

A SURVEY OF LANDS LOCATED IN THE SW 1/4 OF SECTION 30 AND THE NW 1/4 OF SECTION 31
IN TWP. 119, RNG. 24, CITY OF CHASKA, CARVER COUNTY, MINNESOTA

NORTH

0 60 120
SCALE IN FEET

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:
(NOT TO SCALE)



BEING 5 FEET IN WIDTH AND ADJOINING LOT LINES AND BEING 10 FEET IN WIDTH AND ADJOINING PUBLIC WAYS, UNLESS OTHERWISE INDICATED ON THIS PLAT.

DESCRIPTION

THE SUBJECT PROPERTY IS DESCRIBED AS:
OUTLOT B, PIONEER VISTA
CARVER COUNTY, MINNESOTA
(ABSTRACT PROPERTY)

TO BE PLATTED AS:
LOT 1, BLOCK 1, PIONEER VISTA FIRST ADDITION
OUTLOT A, PIONEER VISTA FIRST ADDITION
CARVER COUNTY, MINNESOTA
(ABSTRACT PROPERTY)

PROPERTY SUMMARY

1. SUBJECT PROPERTY'S ADDRESS IS UNASSIGNED, ITS PROPERTY IDENTIFICATION NUMBER IS 30.5000.560.

2. THE AREAS OF THE SUBJECT PROPERTY ARE AS FOLLOWS:

TOTAL AREA:	11.986 ACRES OR 522,101 SQUARE FEET
LOT 1:	3.232 ACRES OR 140,797 SQUARE FEET
OUTLOT A:	8.754 ACRES OR 381,304 SQUARE FEET

3. THE SUBJECT PROPERTY IS ZONED OPEN DEVELOPMENT, PER CITY OF CHASKA ZONING MAP ON THE CITY OF CHASKA WEBSITE ACCESSED 01/05/2021.

SURVEY NOTES

1. THE BEARING SYSTEM IS BASED ON THE CARVER COUNTY COORDINATE SYSTEM, NAD83 (1986 ADJ.)

2. FIELD WORK WAS COMPLETED ON 01/02/2022

3. THIS SURVEY WAS PERFORMED UNDER THE COVER OF SIGNIFICANT SNOW. THE SURVEYOR MAKES NO GUARANTEE THAT ALL IMPROVEMENTS ARE SHOWN HEREON.

4. THE SUBJECT PROPERTY LIES WITHIN FLOOD PLAIN ZONE X, PER FEMA, FIRM MAP NO.27019C0209D DATED 12/21/2018.

5. THERE ARE NO BUILDING ON THE SUBJECT PROPERTY.

BENCHMARKS

1. THE VERTICAL DATUM IS BASED ON NAVD88. THE ORIGINATING BENCH MARK IS MNDOT TOWNGOLF, REFERENCED FROM THE MNDOT GEODETIC DATABASE.

BENCHMARK #1 SANITARY MANHOLE N. END OF SITE	ELEV.=965.84
BENCHMARK #2 SANITARY MANHOLE S. END OF SITE	ELEV.=948.69

LEGEND

- FOUND MONUMENT
- SET MONUMENT MARKED
- ELECTRIC METER
- LIGHT
- AIR CONDITIONER
- GUY ANCHOR
- HANDICAP STALL
- UTILITY POLE
- POST
- SIGN
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- FLARED END SECTION
- TELEPHONE PEDESTAL
- ELECTRIC TRANSFORMER
- GAS METER
- OVERHEAD WIRE
- CHAIN LINK FENCE
- IRON FENCE
- WIRE FENCE
- WOOD FENCE
- EASEMENT LINE
- SETBACK LINE
- RESTRICTED ACCESS
- CONCRETE CURB
- BUILDING LINE
- BUILDING CANOPY
- STANDARD DUTY ASPHALT PAVING
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- LANDSCAPE SURFACE

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, survey, or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Print Name: Daniel C. Wittstock

Date 01/31/2022 License # 19552

PRELIMINARY

STATE AID PROJECT NO.	DRAWN BY DJT
STATE PROJECT NO.	DESIGNED BY
COUNTY PROJECT NO.	CHECKED BY JCW
CITY PROJECT NO.	PROJECT NO. 50521

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PRELIMINARY PLAT
AV DEVELOPMENT, LLC
CHASKA MULTIFAMILY
1/31/2021
CHASKA, CARVER COUNTY, MINNESOTA

SHEET 1 OF 1 REV.

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CONSULTANT CONTACT LIST:

DEVELOPER/OWNER
AV DEVELOPMENT LLC
11800 SINGLE TREE LANE, SUITE 301
EDEN PRAIRIE MN 55344
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CONTACT: BRIAN FRANK

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CONTACT: JAY WITTSTOCK

GEOTECHNICAL
BRAUN INTERTEC
11001 HAMPSHIRE AVENUE
MINNEAPOLIS MN 55348
TEL 952-995-2000
EMAIL
CONTACT:

LANDSCAPE ARCHITECT
SAMBATEK
12800 WHITEWATER DRIVE, SUITE 300
MINNETONKA, MN 55343
TEL 763-476-6010
EMAIL: JWORKMAN@SAMBATEK.COM
CONTACT: JOHN WORKMAN

Preliminary Plans

for

Clover Ridge Apartments

Chaska, Minnesota

Presented by:
AV Development, LLC

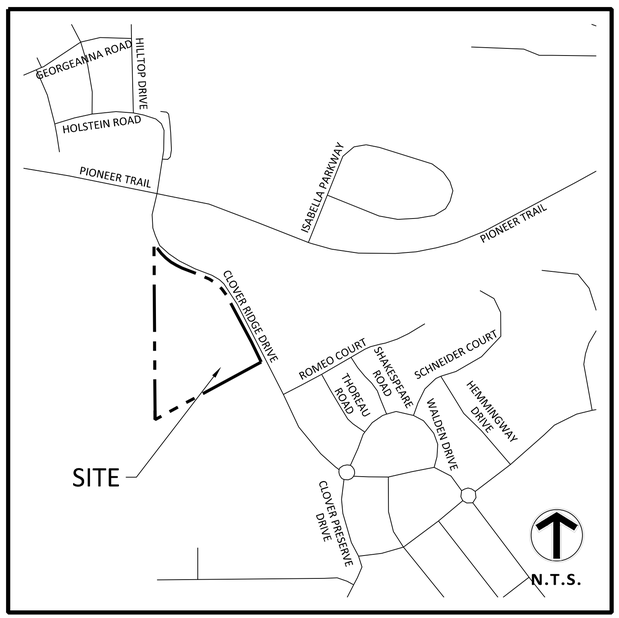
BENCHMARKS

BM NO. 1
SANITARY MANHOLE N. END OF SITE.
ELEV.=965.84

BM NO. 2
SANITARY MANHOLE S. END OF SITE
ELEV.=948.69

SHEET INDEX

SHEET	DESCRIPTION
C1.01	TITLE
C2.01	DEMOLITION PLAN
C3.01	SITE PLAN
C4.01	GRADING PLAN
C6.01	UTILITY PLAN
C9.01	DETAILS
C9.02	DETAILS
L1.01	LANDSCAPE PLAN
L1.02	LANDSCAPE DETAILS AND NOTES



VICINITY MAP
NO SCALE

GOVERNING SPECIFICATIONS

CITY OF CHASKA SPECIFICATIONS (2019)
CITY ENGINEER'S ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS (2013)
MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION (2018 EDITION)

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Brian W. Frank

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY KLS
DESIGNED BY
CHECKED BY
PROJECT NO. 50521

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TITLE

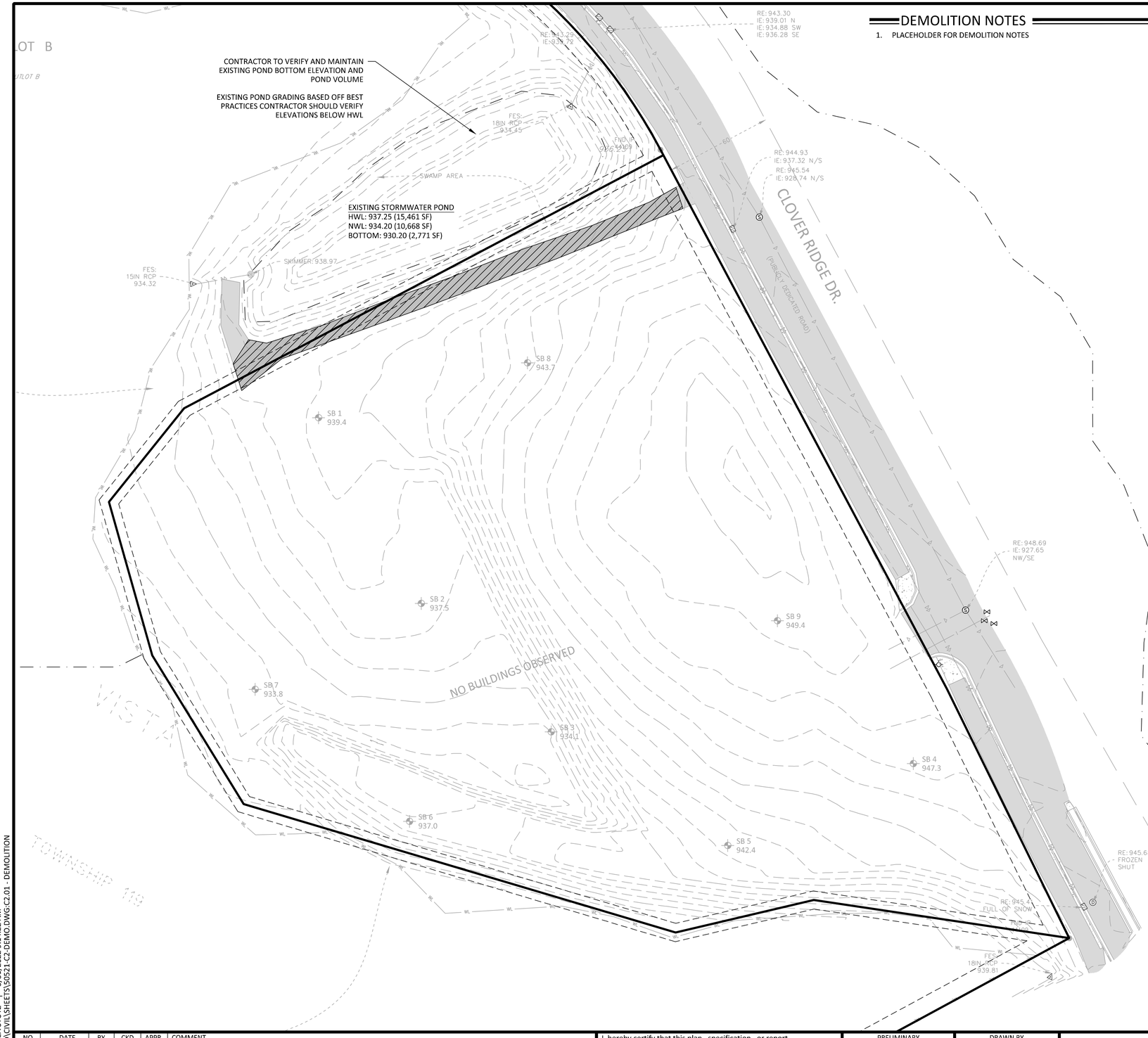
AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

SHEET
C1.01
1 OF 10
REV.

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DEMOLITION NOTES

1. PLACEHOLDER FOR DEMOLITION NOTES

LEGEND

EXISTING

- GAS METER
- HYDRANT
- LIGHT
- STORM SEWER
- DRAINTILE
- WATERMAIN
- FORCEMAIN (SAN.)
- SANITARY SEWER
- OVERHEAD ELECTRIC WIRE
- UNDERGROUND TELEPHONE
- UNDERGROUND CABLE TV
- ELECTRIC
- UNDERGROUND GAS LINE
- WIRE FENCE
- IRON FENCE
- WOOD FENCE
- CHAIN LINK FENCE
- STONE RETAINING WALL
- SPRINKLER HEAD
- SPRINKLER VALVE
- GUARDRAIL
- HANDRAIL
- TREE LINE
- GUARD POST
- SIGN
- CONCRETE CURB
- BUILDING LINE
- REMOVE UTILITY STRUCTURE
- REMOVE EXISTING CONCRETE CURB
- SAW CUT EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING CONCRETE PAVEMENT
- REMOVE EXISTING GRAVEL DRIVE
- REMOVE EXISTING LANDSCAPING
- REMOVE EXISTING BUILDING
- DEMO TREE
- REMOVE EXISTING (DEMO LG)
- REMOVE UTILITY STRUCTURE
- DEMO LIGHT
- REMOVE CHAIN LINK FENCE

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NORTH

SCALE 0 30 60 IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

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Print Name: Brian W. Frank

Date _____ License # _____

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DEMOLITION PLAN

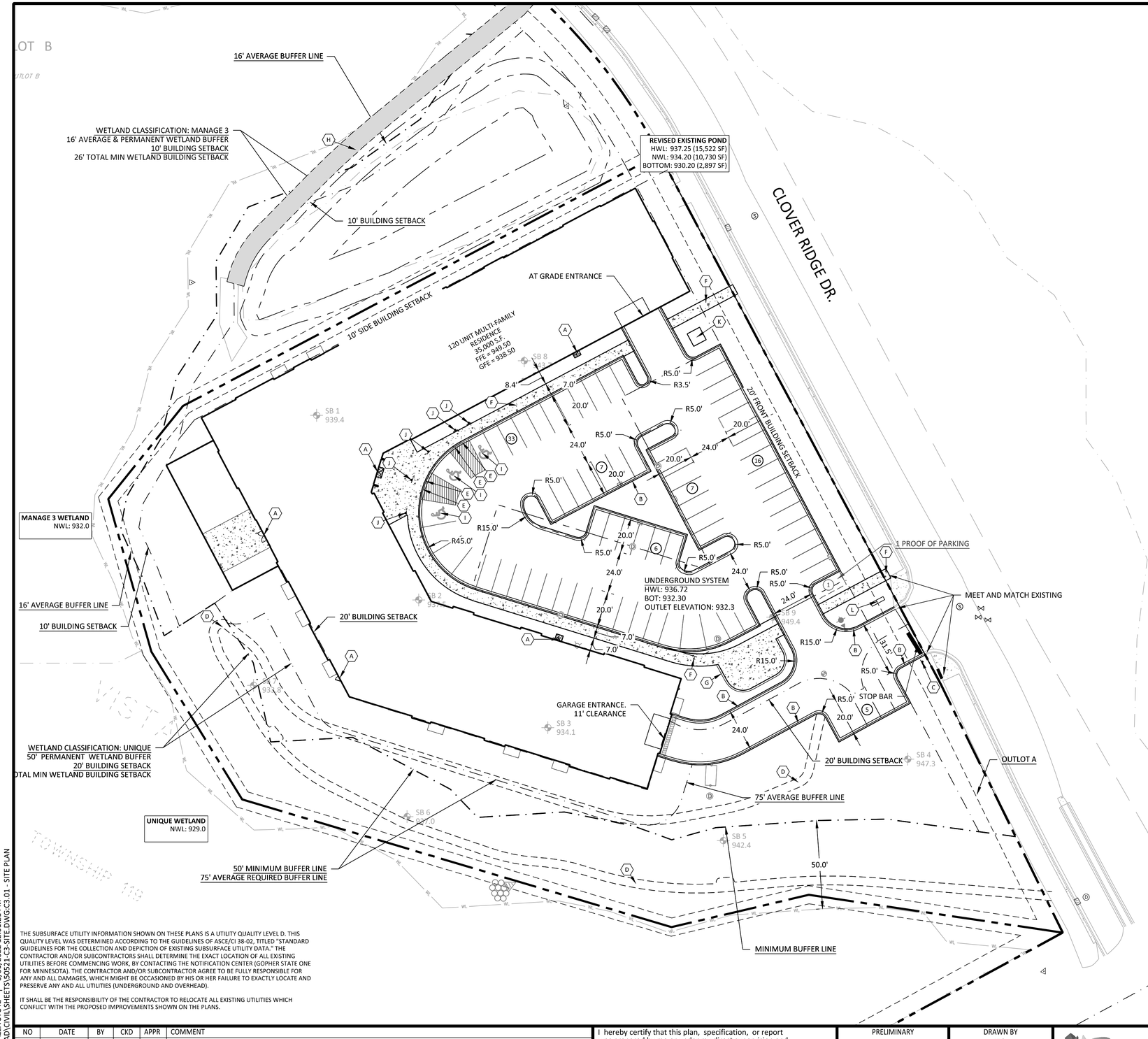
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CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

SHEET
C2.01
2 OF 10
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LEGEND

PROPOSED	EXISTING	
		BOUNDARY LINE
		CONCRETE CURB
		EASEMENT LINE
		BUILDING LINE
		RETAINING WALL
	WT	WET LAND
		TREE LINE
		SAW CUT LINE
		SIGN
		BOLLARD
##		REGULAR PARKING STALL COUNT
1		KEYNOTE

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)

DEVELOPMENT SUMMARY

AREA	
GROSS SITE AREA	552,066 SF 12.67 AC
SETBACKS	
FRONT YARD	30 FEET, 20 FEET REQUESTED
REAR YARD	50 FEET
SIDE YARD	10 FEET
ZONING	
EXISTING ZONING	R: RURAL
PROPOSED ZONING	PRD: PLANNED RESIDENTIAL DEVELOPMENT
BUILDING REQUIREMENTS	
MINIMUM FLOOR AREA	0.50
MAXIMUM BUILDING HEIGHT	45 FT
PARKING SUMMARY	
TOTAL PARKING REQUIRED (PER ORDINANCE)	240 STALLS
TOTAL PARKING REQUIRED (PER PARKING DEMAND MEMO)	119 STALLS
TOTAL PARKING PROVIDED	195 STALLS
COVERED PARKING PROVIDED	120 STALLS
SURFACE LOT PARKING PROVIDED	74 STALLS
PROOF OF PARKING	1 STALLS

DEVELOPMENT NOTES

1. NOTES PLACEHOLDER

KEY NOTES

- A. BUILDING, STOOPS, STAIRS (SEE ARCHITECTURAL PLANS)
- B. B-612 CONCRETE CURB AND GUTTER (SEE DETAIL 01, SHEET C9.02)
- C. STOP SIGN
- D. CRUSHED AGGREGATE PATH
- E. FLAT CURB SECTION (SEE DETAIL 06, SHEET C9.02)
- F. CONCRETE SIDEWALK (SEE DETAIL 02, SHEET C9.02)
- G. SEGMENTAL BLOCK RETAINING WALL
- H. GRASS PAVERS ACCESS TRAIL
- I. ACCESSIBLE STALL STRIPING (SEE DETAIL 04, SHEET C9.02)
- J. ACCESSIBLE PARKING SIGN (SEE DETAIL 05, SHEET C9.02)
- K. TRANSFORMER
- L. MONUMENT SIGN

WETLAND DEVELOPMENT SUMMARY

REQUIRED BUFFER	
MANAGE 3	6,816 SF
UNIQUE	39,832 SF
TOTAL	46,648 SF
PROVIDED BUFFER	
MANAGE 3	6,816 SF
UNIQUE	41,522 SF
TOTAL	48,338 SF

NORTH

0 30 60

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NO	DATE	BY	CKD	APPR	COMMENT

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Print Name: Brian W. Frank

Date _____ License # _____

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SITE PLAN

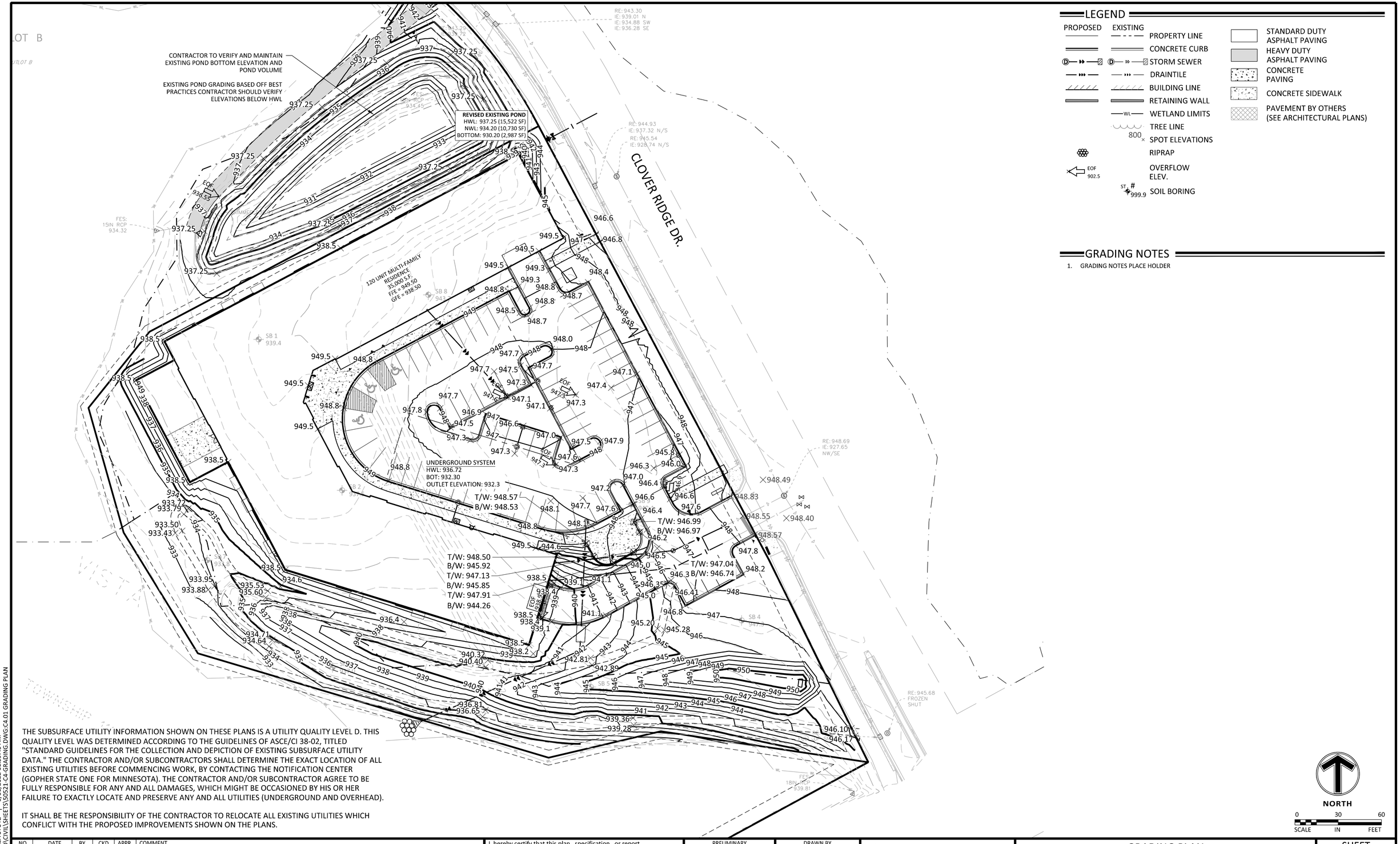
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LEGEND

PROPOSED	EXISTING	
		PROPERTY LINE
		CONCRETE CURB
		STORM SEWER
		DRAINTILE
		BUILDING LINE
		RETAINING WALL
	WL	WETLAND LIMITS
		TREE LINE
	800	SPOT ELEVATIONS
		RIPRAP
EOF 902.5		OVERFLOW ELEV.
	ST # 999.9	SOIL BORING

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)

GRADING NOTES

1. GRADING NOTES PLACE HOLDER

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GRADING PLAN

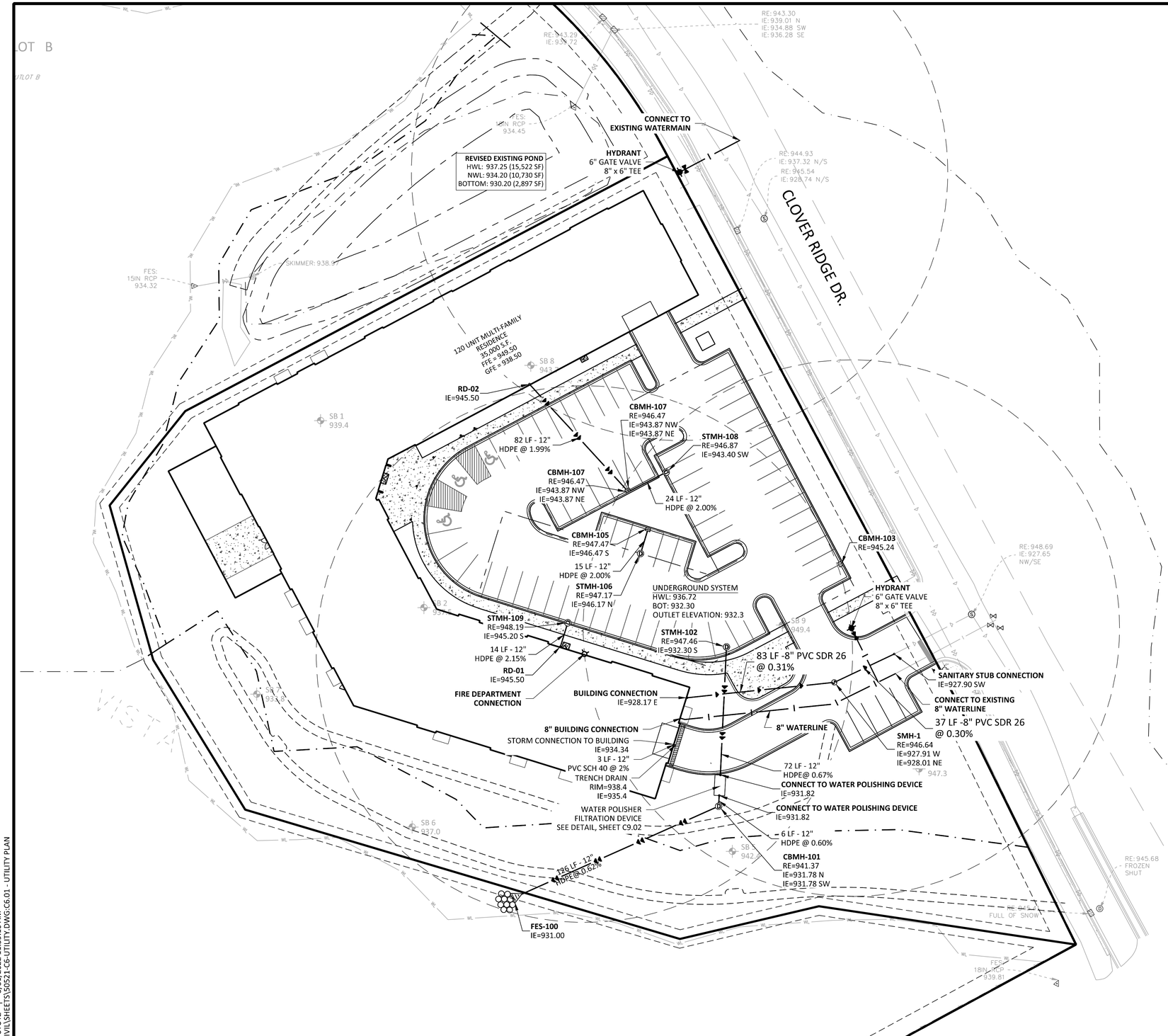
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LEGEND

- SANITARY SEWER
- FORCEMAIN (SAN.)
- STORM SEWER
- DRAINTILE
- WATERMAIN
- UNDERGROUND GAS LINE
- UNDERGROUND TELEPHONE
- ELECTRIC
- CONCRETE CURB
- EASEMENT LINE

UTILITY CONSTRUCTION NOTES

1. UTILITY CONSTRUCTION NOTES HOLDER

STORM SEWER STRUCTURE SCHEDULE

NUMBER	TYPE	CASTING*
*INDICATES NEENAH FOUNDRY CASTING NO., OR APPROVED EQUAL		
NOTE: CONTRACTOR AND THEIR SUPPLIER SHALL DETERMINE THE MINIMUM DIAMETER REQUIRED FOR EACH STORM SEWER STRUCTURE.		

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IF THE CONTRACTOR ENCOUNTERS ANY DRAIN TILE WITHIN THE SITE, HE OR SHE SHALL NOTIFY THE ENGINEER WITH THE LOCATION, SIZE, INVERT AND IF THE TILE LINE IS ACTIVE. NO DRAIN TILE SHALL BE BACKFILLED WITHOUT APPROVAL FROM THE PROJECT ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NORTH

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UTILITY PLAN

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CHASKA, MINNESOTA

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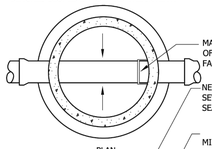
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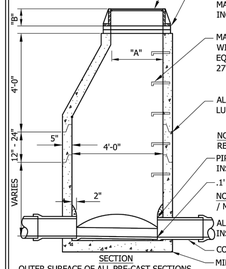
PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"



PLAN



SECTION

- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
- NEENAH COVER **R-1642-5001**, LETTERED "SANITARY SEWER" WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATION FOR CASTING NUMBER.
- MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. FINAL RING MATERIAL AND ADHESIVE TO BE SPECIFIED BY OWNER ON A PROJECT BASIS.
- MAXIMUM 20"ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.
- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL)
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS AND RAMNECK.
- NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.
- PIPE SHALL BE CUT 2" FROM INSIDE FACE OF WALL.
- .1' DROP ACROSS INVERTS MIN.
- NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.
- ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
- COMPACT TO TOP OF PIPE, TO FIRST JOINT.
- MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS) .

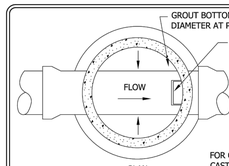
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SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-1

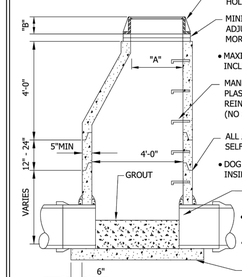


PLAN

- GROUT BOTTOM OF MANHOLE TO A MINIMUM OF 1/2 DIAMETER AT PIPE AND SLOPE GROUT 2" TOWARD INVERT.
- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM FOR ALL LINES UP TO 24". PLACE STEPS ON RIGHT HAND SIDE WHEN FACING DOWN STREAM FOR ALL 24 " AND OVER.

FRAME	A	B
R1642-2310B	27"	7"

FOR OFF-ROAD SITUATIONS, USE R1916F CASTING MARKED "STORM SEWER". COVERS MUST BE SECURED TO PREVENT REMOVAL.



SECTION

- NEENAH COVER **R1642-5040** LETTERED, "STORM SEWER", WITH 2 CONCEALED PICK HOLES.
- MINIMUM OF 2 MAXIMUM OF 4 CONCRETE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING.
- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.
- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS.
- DOG HOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE OF STRUCTURE.
- PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.
- NOTE: KOR-N-SEAL MANHOLE OR EQUAL CONSIDERED ACCEPTABLE ALTERNATE.
- NOTE: A MINIMUM SLOPE OF 1% IS REQUIRED ACROSS THE INVERT.
- MINIMUM SLAB THICKNESS, 6" TO 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATHER THAN 14', AND REINFORCE WITH PER MNDOT STD 4011

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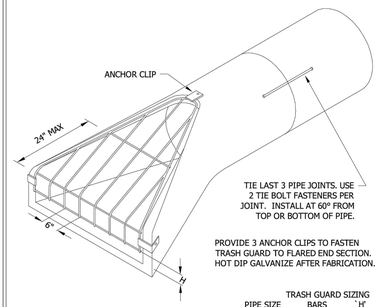
STORM SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-1

SEE CITY PLATE NO. STO-10 FOR RIPRAP PLACEMENT.



ISOMETRIC

PROVIDE 3 ANCHOR CLIPS TO FASTEN TRASH GUARD TO FLARED END SECTION. HOT DIP GALVANIZE AFTER FABRICATION.

TRASH GUARD SIZING

PIPE SIZE	BARS	'H'	BOLTS
12"	3/4"Ø	2 1/2"	5/8"
15"	3/4"Ø	3"	5/8"
18"	3/4"Ø	4"	5/8"
21"-24"	1"Ø	4"	3/4"
27"-36"	1"Ø	5"	3/4"
42"	1"Ø	6"	3/4"
48"-54"	1 1/4"Ø	6"	1"
60"-72"	1 1/4"Ø	7"	1"
78"-90"	1 1/4"Ø	8"	1"

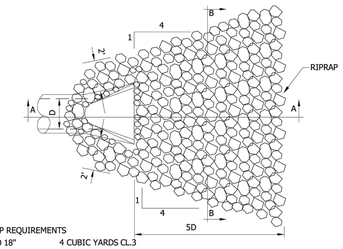
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FLARED END SECTION AND TRASH GUARD

CHASKA, MINNESOTA

LAST REVISION: FEB. 1995

PLATE NO. STO-10

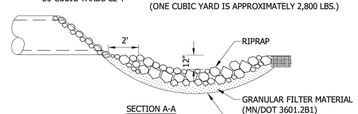


PLAN

RIPRAP REQUIREMENTS

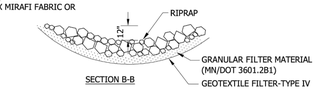
12" TO 18"	4 CUBIC YARDS CL.3
21" TO 27"	8 CUBIC YARDS CL.3
30" TO 36"	12 CUBIC YARDS CL.3
42" TO 48"	16 CUBIC YARDS CL.3
54" AND UP	20 CUBIC YARDS CL 4

(ONE CUBIC YARD IS APPROXIMATELY 2,800 LBS.)



SECTION A-A

NOTE
FILTER BLANKET REQUIRED UNDER RIPRAP OR 2 LAYERS OF 500X MIRAFI FABRIC OR EQUAL



SECTION B-B

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RIPRAP AT OUTLETS

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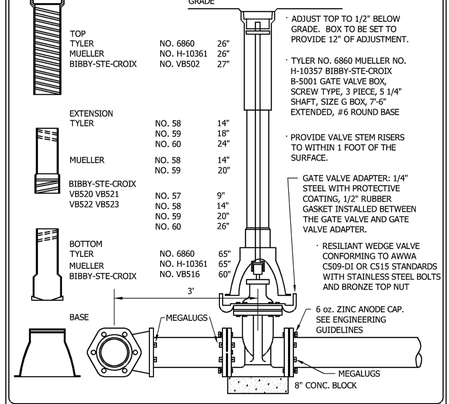
LAST REVISION: APRIL 2004

PLATE NO. STO-11

DROP LID
TYLER NO. 6860
MUELLER NO. H-10361
BIBBY-STE-CROIX NO. B-5160

NOTES: CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

- PROVIDE POLYWRAP AROUND ALL WATERMAIN
- 7.5' MINIMUM COVER REQUIRED OVER TOP OF WATER MAIN.
- RESTRAIN TEE AND VALVE WITH EPOXY COATED MEGALUG (OR EQUAL) THRUST RESTRAINTS.



TOP

TYLER	NO. 6860	26"
MUELLER	NO. H-10361	26"
BIBBY-STE-CROIX	NO. VB502	27"

- ADJUST TOP TO 1/2" BELOW GRADE. BOX TO BE SET TO PROVIDE 12" OF ADJUSTMENT.
- TYLER NO. 6860 MUELLER NO. H-10357 BIBBY-STE-CROIX B-5001 GATE VALVE BOX, SCREW TYPE, 3 PIECE, 5 1/4" SHAFT, SIZE G BOX, 7'-6" EXTENDED, #6 ROUND BASE

EXTENSION

TYLER	NO. 58	14"
	NO. 59	18"
	NO. 60	24"
MUELLER	NO. 58	14"
	NO. 59	20"

- PROVIDE VALVE STEM RISERS TO WITHIN 1 FOOT OF THE SURFACE.

BIBBY-STE-CROIX

VB520 VB521	NO. 57	9"
VB522 VB523	NO. 58	14"
	NO. 59	20"
	NO. 60	26"

- GATE VALVE ADAPTER: 1/4" STEEL WITH PROTECTIVE COATING, 1/2" RUBBER GASKET INSTALLED BETWEEN THE GATE VALVE AND GATE VALVE ADAPTER.
- RESILIANT WEDGE VALVE CONFORMING TO AWWA C509-DI OR C515 STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT

BOTTOM

TYLER	NO. 6860	65"
MUELLER	NO. H-10361	65"
BIBBY-STE-CROIX	NO. VB516	60"

- 6 oz. ZINC ANODE CAP. SEE ENGINEERING GUIDELINES

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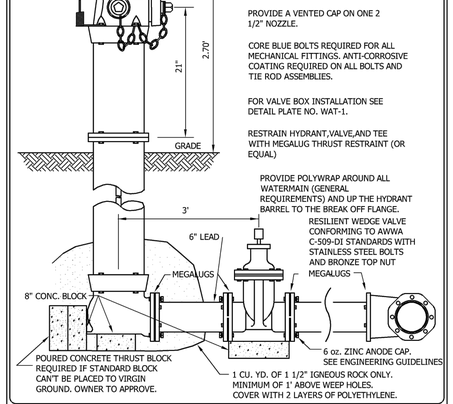
GATE VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-1

HYDRANT MARKER WITH FLEX SPRING HYDRA/FINDER (CANDY CANE) (PROVIDE 2 PER HYDRANT DELIVER EXTRA TO CHASKA UTILITIES.)



ALL HYDRANT LEAD AND PIPE JOINTS SHALL BE RESTRAINED WITH TIE RODS AND EPOXY COATED MEGALUGS.

HYDRANT SHALL BE WATEROUS PACER WB-67-250 WITH 16" TRAFFIC BREAK OFF SECTION, AND EPOXY COATED BOOT.

HYDRANT SHALL BE FOR 8.0' BURY. WATERMAIN SHALL HAVE 7'-6" OF COVER.

PROVIDE A VENTED CAP ON ONE 2 1/2" NOZZLE.

CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

FOR VALVE BOX INSTALLATION SEE DETAIL PLATE NO. WAT-1.

RESTRAIN HYDRANT,VALVE,AND TEE WITH MEGALUG THRUST RESTRAINT (OR EQUAL)

PROVIDE POLYWRAP AROUND ALL WATERMAIN (GENERAL REQUIREMENTS) AND UP THE HYDRANT BARREL TO THE BREAK OFF FLANGE.

RESILIENT WEDGE VALVE CONFORMING TO AWWA C-509-DI STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT

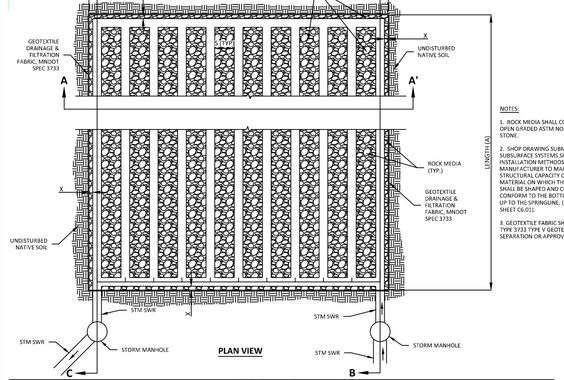
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Minneapolis, MN 55402
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WATEROUS PACER HYDRANT AND VALVE INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-2



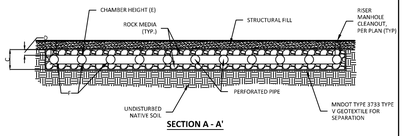
PLAN VIEW

NOTES:

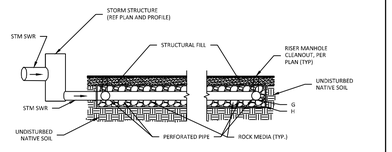
1. ROCK MEDIA SHALL CONSIST OF AN OPEN GRADED ASTM NO. 2 CRUSHED STONE.
2. SHOP DRAWING SUBMITTALS FOR SUBSURFACE SYSTEMS SHALL INCLUDE INSTALLATION METHODS PER PIPE MANUFACTURER TO MAINTAIN STRUCTURAL CAPACITY OF PIPES. THE SAND BEDDING ON WHICH THE PIPE IS BEDDED SHALL BE COMPACTED AND CONFIGURED TO CONFORM TO THE BOTTOM OF THE PIPE, UP TO THE SPRINGLINE. (SEE NOTE #12 ON SHEET C6.01)
3. GEOTEXTILE FABRIC SHALL BE MNDOT TYPE 3733 TYPE V GEOTEXTILE FOR SEPARATION OR APPROVED EQUIVALENT.

SUBSURFACE SYSTEMS

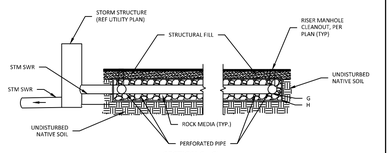
BMP	TYPE OF SYSTEM	LENGTH, FT (A)	WIDTH, FT (B)	SYSTEM DEPTH, FT (C)	PIPE COVER, IN (D)	PIPE SIZE, IN (E)	ROWS (F)	PIPE INVERT (G)	BOTTOM OF ROCK (H)	EDGE SPACING, IN (X)	PIPE SPACING, IN (S)	TOTAL STORAGE (CF)
1P	PERF. CMP PIPE	183.00	90.00	5.00	6.0	48	15	932.80	932.30	12.0	24.0	34117.0



SECTION A - A'



SECTION B - B'



SECTION C - C'

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Brian W. Frank

Date _____ License # _____

PRELIMINARY

DESIGN REVIEW

PERMIT SUBMITTAL

CONSTRUCTION DOCUMENTS

DRAWN BY KLS

DESIGNED BY

CHECKED BY

PROJECT NO. 50521

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DETAILS

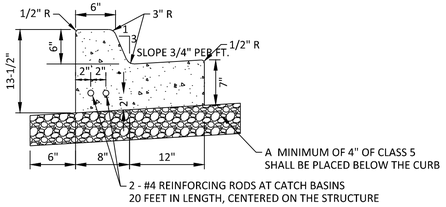
AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

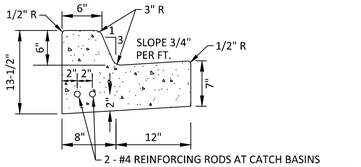
CHASKA, MINNESOTA

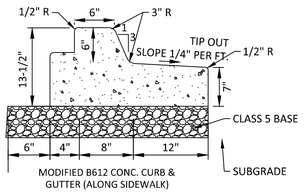
SHEET C9.01 9 OF 10 REV.

C:\PROJECTS\50521\CAD\CIVIL\SHEETS\50521-C9-DETAILS.DWG | 3/31/2022 9:14:21 AM | ALEA STUTZ | ALEA.STUTZ@STANTEC.COM (LMS TECH)

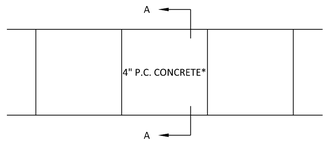
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01 B612 CONCRETE CURB & GUTTER
N.T.S.

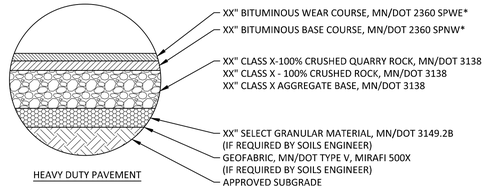


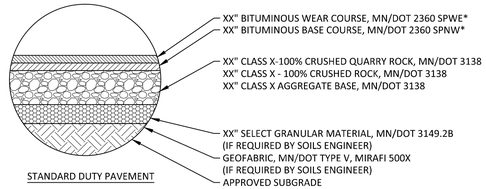
GENERAL NOTES FOR CONCRETE CONSTRUCTION:

1. THE CONCRETE SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF MN/DOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
2. SIDEWALK CONTROL JOINTS SHALL BE LOCATED AT 5 FEET ON CENTER. SIDEWALK EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM OF 100 FEET ON CENTER, AND WHERE SIDEWALK ABUTS CURB, STRUCTURES, AND OTHER FIXED OBJECTS. SEAL ALL EXPANSION JOINTS. BROOM FINISH SHALL BE PERPENDICULAR TO THE LINE OF TRAFFIC.

*THE THICKNESS SHALL BE INCREASED TO A MINIMUM DEPTH OF __ INCHES AT DRIVEWAY CROSSINGS.

02 CONCRETE SIDEWALK
N.T.S.

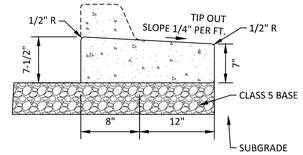




* REFER TO BITUMINOUS MIX DESIGN REQUIREMENT PROVIDED BY THE GEOTECHNICAL CONSULTANT

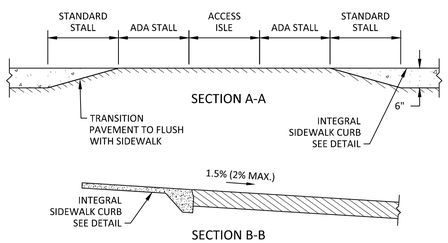
NOTES:
1. THE PAVEMENT SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MNDOT "STANDARD SPECIFICATION FOR CONSTRUCTION", AND ALSO THE REQUIREMENTS OF THE OWNER'S GEOTECHNICAL CONSULTANT.
2. ALL THICKNESSES, AS SPECIFIED, ARE TO BE CONSIDERED MINIMUM DEPTHS, AFTER COMPACTION.
3. MN/DOT SPEC. 2357 BITUMINOUS TACK COAT SHALL BE PLACED BETWEEN SUCCESSIVE BITUMINOUS LIFTS AND AGAINST ABUTTING CONCRETE CURB EDGES.

03 PAVEMENT SECTIONS
N.T.S.



06 B612 FLAT CURB & GUTTER
N.T.S.

PLAN VIEW OF ADA PARKING



04 ADA PARKING
N.T.S.

05 BREAKAWAY ACCESSIBLE PARKING SIGN
N.T.S.

SITE SPECIFIC DATA*

PROJECT NUMBER	
PROJECT NAME	
PROJECT LOCATION	
STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS)	
PEAK FLOW RATE (CFS)	
PEAK STORM DURATION (YEARS)	

PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
OUTLET PIPE 1			
RIM ELEVATION			

SURFACE LOADING REQUIREMENT	
FRAME AND COVER	#30"
CORROSIVE SOIL CONDITIONS	
KNOWN GROUNDWATER ELEVATION	

NOTES:

*PER ENGINEER OF RECORD

WP PERFORMANCE DATA

TREATMENT FLOW RATE (CFS)	0.60
MEDIA SURFACE AREA (SF)	25
LOADING RATE (GPM/SF)	--
SEDIMENT STORAGE CAPACITY (CF)	90.50

WP STORAGE CAPACITIES

SEDIMENT CHAMBER CAPACITY

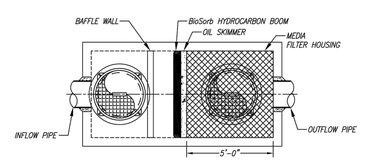
	LENGTH (FT)	WIDTH (FT)	HEIGHT (FT)	TOTAL (CF)
CHAMBER 1	3.25	5.00	3.44	55.90
CHAMBER 2	6.92	5.00	1.00	34.60

GENERAL NOTES

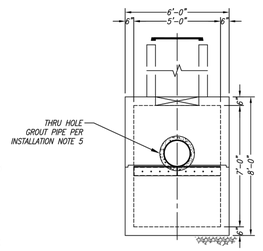
1. BIO CLEAN TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

INSTALLATION NOTES

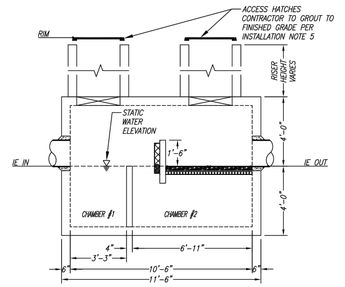
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE NSBB UNIT AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. MANUFACTURER RECOMMENDS A 6"-12" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH).
4. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. ALL COVERS SHALL BE SHIPPED LOOSE. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.



PLAN VIEW
NTS



END VIEW
NTS



ELEVATION VIEW
NTS

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BIO CLEAN ENVIRONMENTAL SERVICES, INC.
biocleanenvironmental.com
P 760.433.7640 F 760.433.3176

WP-5-10.5
WATER POLISHER-UP FLOW MEDIA FILTER
STANDARD DETAIL

220156509

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Brian W. Frank

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY KLS
DESIGNED BY
CHECKED BY
PROJECT NO. 50521

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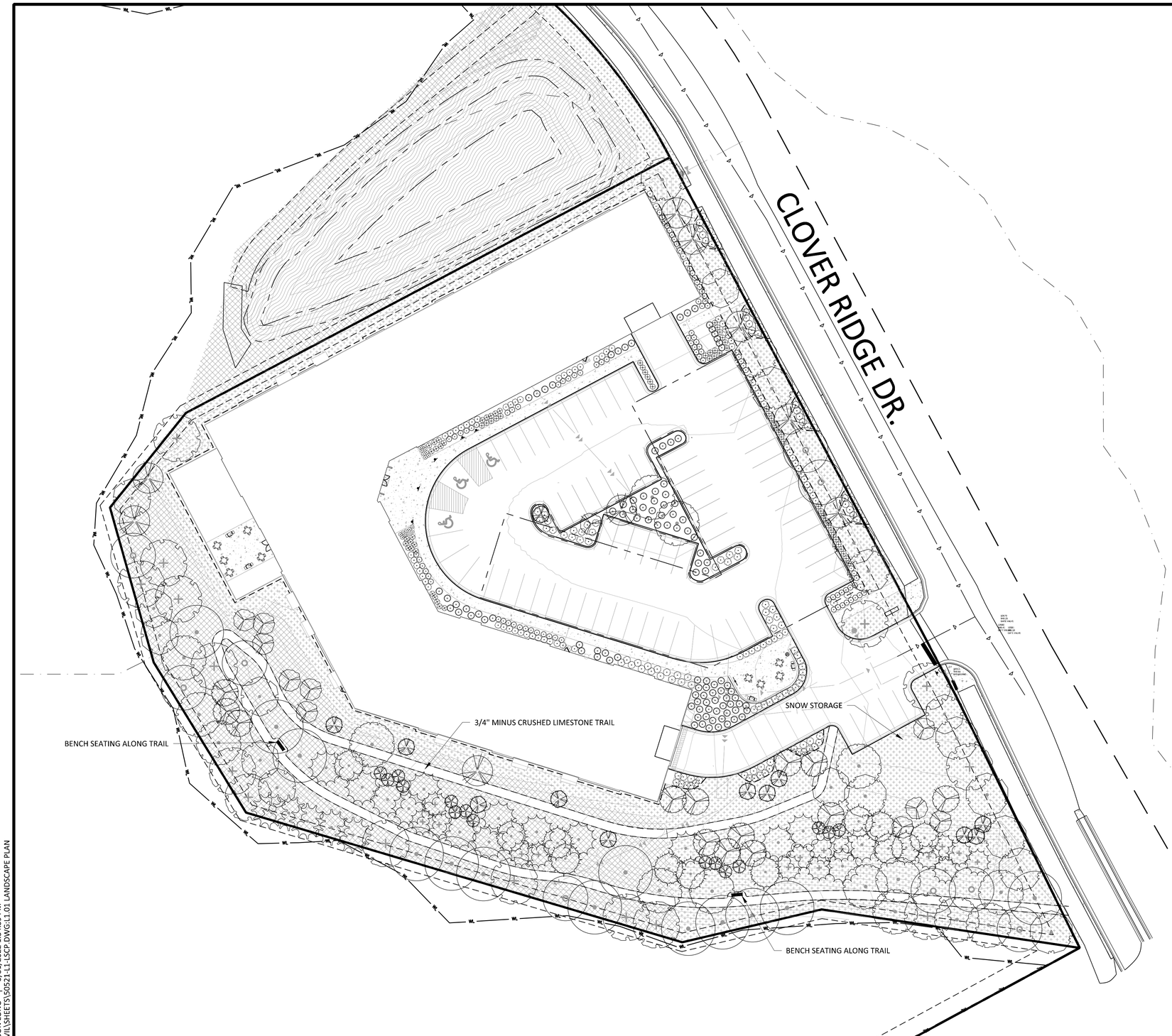
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CHASKA, MINNESOTA

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10 OF 10
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LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
EASEMENT		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		WL
TREELINE		
LANDSCAPE EDING		
STORM SEWER	D	
SANITARY SEWER	S	
FORCEMAIN (SAN.)	LS FM	S
WATERMAIN		
YARDDRAIN		
LIMITS OF DISTURBANCE		

STANDARD DUTY ASPHALT PAVING
CONCRETE PAVING
CONCRETE SIDEWALK
TREE PROTECTION FENCE — TP
TREE TO BE REMOVED
SIGN
PIPE BOLLARD
RIPRAP

CHASKA LANDSCAPE CODE

1. Total Caliper Inches of Overstory Trees Required. In order to achieve landscaping which is appropriate in scale with the size of a building site, the minimum number of caliper inches of overstory trees required shall be determined by dividing the total gross square footage of all floors of a building by 320.
2. Understory Trees and Shrubs. In addition to the required number of overstory trees listed above, a full complement of understory trees and shrubs shall be provided to complete a quality landscape treatment of the site. A minimum number of understory trees and shrubs are required as follows:
   - 2.1. The number of understory trees shall be equal to twenty-five (25) percent of the required number of overstory trees; and
   - 2.2. The number of shrubs shall be equal to one (1) shrub per thirty (30) feet of site perimeter or one (1) shrub per three-hundred (300) square feet of building footprint, whichever is greater.
3. For the purpose of satisfying the total caliper inch requirement, coniferous trees can be considered equivalent to overstory trees by dividing the height of a coniferous tree's six (6) foot height minimum by 2.4 to determine equivalent caliper inches.

TOTAL NUMBER OF STORIES ON BUILDING: 4

TOTAL CALIPER INCHES REQUIRED: 442"

CALCULATIONS	INCHES REQUIRED	INCHES PROPOSED	TREES PROPOSED
2.5" CAL. OVERSTORY TREES REQUIRED(40%)	176.8	177.5	71
3" CAL. OVERSTORY TREES REQUIRED(20%)	88.4	90	30
3.5" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	45.5	13
4" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	44	11
4.5" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	45	10
5" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	45	9
UNDERSTORY TREES REQUIRED		36	36
SHRUBS REQUIRED		471	471

	REQUIRED	PROPOSED
LANDSCAPE ISLAND CALCULATION (5,475SF / 37,223SF)	10%	14%

OPEN SPACE CALCULATION
BALCONIES (2,560 SF)
OPEN SPACE A,B,AND C (43,252 SF)

TOTAL (CALCULATION: 45,812 SF/ 163,501 SF)	15% (24,525 SF)	28% (45,812 SF)

PLANT SCHEDULE

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	AB	Acer freemanii 'Autumn Blaze' / Autumn Blaze Maple	B & B	5" Cal		9
	SG	Acer freemanii 'Sienna Glen' / Sienna Glen Maple	B & B	3.5" Cal.		13
	BPS	Betula papyrifera 'Whitespire' / Whitespire Birch	B & B	2.5"Cal		9
	HL	Gleditsia triacanthos 'Skyline' / Skyline Honey Locust	B & B	3"Cal.		15
	KC	Gymnocladus dioica 'Espresso' / Kentucky Coffeetree	B & B	4.5" CAL.		10
	SO	Quercus bicolor / Swamp White Oak	B & B	3"Cal.		15
	BL	Tilia americana 'Boulevard' / Boulevard Linden	B & B	4"CAL		11
CONIFERS	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	BF	Abies balsamea / Balsam Fir	B & B		6'	15
	LR	Larix laricina / Tamarack	B & B		6'	5
	NS	Picea abies / Norway Spruce	B & B		6'	12
	BS	Picea glauca densata / Black Hills Spruce	B & B		6'	15
	PW	Pinus strobus 'Fastigiata' / Pyramidal White Pine	B & B		6'	15
ORN. TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	SB	Amelanchier canadensis 'Autumn Brilliance' / Autumn Brilliance Serviceberry	B & B	2"Cal		11
	RE	Cercis canadensis / Eastern Redbud	B & B	2"Cal		12
	IL	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	B & B	2"Cal		13
SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT			
	BH	Diervilla lonicera / Dwarf Bush Honeysuckle	5 gal			69
	LH	Hydrangea paniculata 'Jane' / Little Lime Hydrangea	5 gal			90
	CJ	Juniperus sabina 'Monna' / Calgary Carpet Juniper	5 gal			100
	PM	Pinus mugo 'Slowmound' / Mugo Pine	5 gal			28
	PT	Potentilla fruticosa 'Fargo' TM / Fargo Potentilla	5 gal			88
	GL	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	5 gal			52
	GS	Spiraea japonica 'Goldflame' / Spirea	5 gal			37
	HA	Thuja occidentalis 'Holmstrup' / Holmstrup Cedar	10 gal			6
PERENNIALS	CODE	BOTANICAL / COMMON NAME	CONT			
	SBA	Allium x 'Summer Beauty' / Summer Beauty Allium	1 gal			37
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT			
	33-261	MNDOT Seed Mix 33-261 / Ponds and Wet Areas	Seed			
	34-262	MNDOT Seed mix 34-262 / Wet Prairie	Seed			
	TURF HYG	Turf Sod Highland Sod / Sod	Sod			

NORTH
0 30 60
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Print Name: Johnnie R. Workman

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY
DESIGNED BY
CHECKED BY
PROJECT NO. 50521

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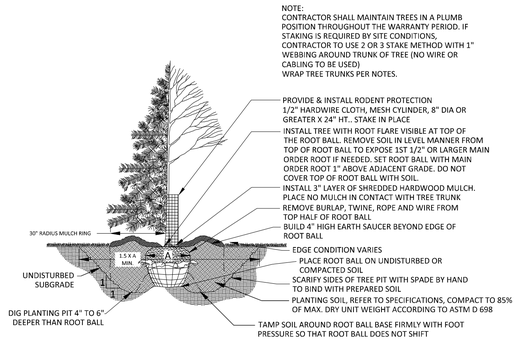
LANDSCAPE PLAN

AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

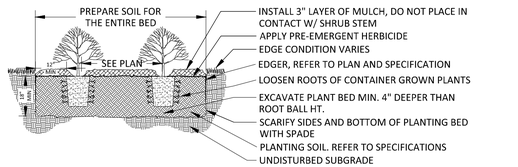
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3 OF 10
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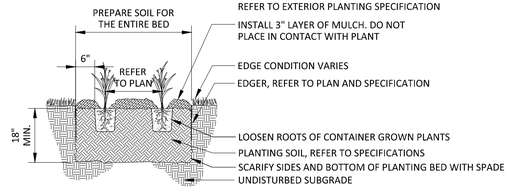
1 C3.01 TREE PLANTING DETAIL

1/4" = 1'-0" P-01



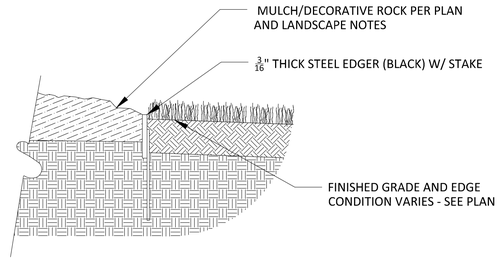
2 C3.01 SHRUB PLANTING DETAIL

3/8" = 1'-0" P-02



3 C3.01 PERENNIAL PLANTING DETAIL

1/2" = 1'-0" P-03



4 C3.01 STEEL EDGER

1 1/2" = 1'-0" P-06

NOTES

GENERAL NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK.
2. THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO SAME SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
5. LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
6. **THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.**
7. THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
8. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
9. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
10. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING.
11. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
12. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.

PLANTING NOTES:

1. NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
2. A GRANULAR PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANT BEDS AT THE MANUFACTURERS RECOMMENDED RATE PRIOR TO PLANT INSTALLATION.
3. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
4. OVERSTORY TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACES.
5. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
6. PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
7. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
8. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
10. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
11. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
12. MULCH: DOUBLE SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 3" FOR SHRUB BEDS, TREE RINGS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
13. BUILDING MAINTENANCE STRIP: WHERE NO LANDSCAPE PLANTING BEDS EXIST ADJACENT TO A BUILDING FOUNDATION, CONTRACTOR SHALL INSTALL A DECORATIVE ROCK MAINTENANCE STRIP PER PLAN. DECORATIVE ROCK SHALL BE 1"-3" DRESSER TRAP ROCK, GREY IN COLOR.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN.
15. USE ANTI-DESICCANT (WILTPRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND FOR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
16. WRAP ALL SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1. TREE WRAPPING MATERIAL SHALL BE WHITE TWO-WALLED PLASTIC SHEETING APPLIED FROM TRUNK FLARE TO THE FIRST BRANCH.
17. ALL DECIDUOUS, PINE, AND LARCH PLANTINGS SHALL RECEIVE RODENT PROTECTION PER MNDOT 2571.31.2
18. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT (4% MIN.) OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MNDOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL. MIXTURE SHALL BE FREE FROM HARDPACK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED IN A 6" LAYER AND ROTO-TILLING IT INTO THE TOP 12" OF SOIL AT A 1:1 RATIO.ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
19. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT EACH EXCAVATED TREE AND SHRUB PIT WILL PERCOLATE PRIOR TO INSTALLING PLANTING MEDIUM AND PLANTS. THE CONTRACTOR SHALL FILL THE BOTTOM OF SELECTED HOLES WITH SIX INCHES OF WATER AND CONFIRM THAT THIS WATER WILL PERCOLATE WITHIN A 24-HOUR PERIOD. IF THE SOIL AT A GIVEN AREA DOES NOT DRAIN PROPERLY, A PVC DRAIN OR GRAVEL SUMP SHALL BE INSTALLED OR THE PLANTING SHALL BE RELOCATED IF DIRECTED BY THE LANDSCAPE ARCHITECT.
20. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
21. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
22. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK.

22.1.	POTTED PLANTS:	4/1 - 6/1; 9/21 - 11/1
22.2.	DECIDUOUS /B&B:	4/1 - 6/1; 9/21 - 11/1
22.3.	EVERGREEN POTTED PLANTS:	4/1 - 6/1; 9/21-11/1
22.4.	EVERGREEN B&B:	4/1 - 5/1; 9/21 - 11/1
22.5.	TURF/LAWN SEEDING:	4/1 - 6/1; 7/20 - 9/20
22.6.	NATIVE MIX SEEDING:	4/15 - 7/20; 9/20-10/20

23. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
24. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
25. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK. IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.

TURF NOTES:

TURF ESTABLISHMENT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROVISIONS OF THE MN/DOT 2105 AND 2575 EXCEPT AS MODIFIED BELOW:

1. ALL AREAS TO RECEIVE SOD SHALL ALSO RECEIVE 6" OF TOPSOIL PRIOR TO INSTALLING SOD. TOPSOIL SHALL BE FREE OF TREE ROOTS, STUMPS, BUILDING MATERIAL, AND TRASH, AND SHALL BE FREE OF STONES LARGER THAN 1 ½" INCHES IN ANY DIMENSION.
2. WHERE SOD ABUTS PAVED SURFACES, FINISHED GRADE OF SOD/SEED SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
3. SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND SHALL HAVE STAGGERED JOINTS. ON SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES, SOD SHALL BE STAKED SECURELY.
4. TURF ON ALL OTHER AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY SEEDING, MULCHING AND FERTILIZING. SEED MIXTURE NO.25-121 WILL BE PLACED AT THE RATE OF 65 POUNDS PER ACRE.
5. ALL DISTURBED AREAS TO BE TURF SEEDED, ARE TO RECEIVE 6" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.
6. ALL DISTURBED AREAS TO RECEIVE NATIVE SEED, ARE TO RECEIVE PLANTING SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.

GENERAL TREE SPECIFICATIONS:

1. ALL STREET AND PARKING LOT TREES SHALL BE LIMBED UP TO THE FOLLOWING HEIGHTS:
   - 1.1. 2" CAL. TREES: LOWEST BRANCH 6' HT.
   - 1.2. 3" CAL + TREES: LOWEST BRANCH 7' HT.
2. TREE CANOPY WIDTH SHALL BE RELATIVE TO HEIGHT/CALIPER OF TREE AND TYPE OF TREE.
   - 2.1. 1" CALIPER/6-8' HT: 3-4' WIDTH MIN.
   - 2.2. 2" CALIPER/12-14' HT: 4-5' WIDTH MIN.
   - 2.3. 3" CALIPER/14-16' HT: 6-7' WIDTH MIN.
3. CANOPY TREES SHALL NOT HAVE CO-DOMINATE LEADERS IN LOWER HALF OF TREE CROWN.
4. ALL TREES SHALL HAVE SYMMETRICAL OR BALANCED BRANCHING ON ALL SIDES OF THE TREE.
5. TREES SHALL NOT BE TIPPED PRUNED.
6. TREES SHALL BE FREE OF PHYSICAL DAMAGE FROM SHIPPING AND HANDLING. DAMAGED TREES SHALL BE REJECTED.
7. SUMMER DUG TREES SHALL HAVE ROOTBALL SIZE INCREASED BY 20%
8. TREES WHICH EXCEED RECOMMENDED CALIPER TO HEIGHT RELATIONSHIP SHALL BE REJECTED.

IRRIGATION NOTES:

1. IRRIGATION SYSTEM TO BE DESIGN/BUILD. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL OF SYSTEM LAYOUT PRIOR TO INSTALLATION.
2. ALL SOD TO RECEIVE SPRAY OR ROTOR IRRIGATION HEADS WITH MINIMUM DESIGN OF 1" IRRIGATION PER WEEK.
3. ALL PLANT BEDS TO RECEIVE DRIP LINE IRRIGATION , WITH A MINIMUM DESIGN OF .25" IRRIGATION PER WEEK.
4. CONTRACTOR TO INSTALL A TOTAL OF 4 QUICK COUPLERS AT THE CORNERS OF THE PROPERTY. A 2.5" TYPE K SOURCE PIPE IS PROVIDED BY MECHANICAL.

LOW MAINTENANCE FESCUE NOTES:

1. DURING GROWING SEASON NEVER MOW SHORTER THAN 3.5 INCHES, PREFERRED MAINTENANCE IS MOW ONCE PER MONTH AT 5" HEIGHT
2. DO NOT USE HIGH NITROGEN FERTILIZER ON FESCUE LAWN
3. OVERSEED THIN,BARE SPOTS IN FALL
4. ALWAYS USE SHARP BLADE WHEN MOWING TO AVOID TEARING LEAF BLADE
5. SET MOWER TO 3" FOR BAGGING AND MOWING IN LATE FALL AFTER GROWING SEASON

NATIVE SEED MIX NOTES:

1. ESTABLISHMENT AND YEAR ONE: MOW THREE(3) TIMES FIRST YEAR ON 30-DAY INTERVALS TO A HEIGHT BETWEEN FIVE AND EIGHT INCHES. DO NOT USE FERTILIZERS. SPOT TREAT INVASIVE WOODY PLANTS OR HAND WEED INDIVIDUAL NOXIOUS WEEDS.
2. YEAR TWO: PERFORM ONE MOWING BETWEEN MID-JUNE AND MID-AUGUST. SPOT SPRAY WEEDS AS NEEDED WHERE THEY ARE ESPECIALLY DOMINATE.
3. YEAR THREE (AND BEYOND): CUT ONE TIME PER YEAR AS A CLEAN UP PROCEDURE (EITHER IN EARLY MAY OR LATE NOVEMBER). PRESCRIBED BURNS MAY BE USED AS WELL IN PLACE OF MOWING. CHECK LOCAL REGULATIONS AND PERMIT PROCEDURES.

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Print Name: Johnnie R. Workman

Date _____ License # _____

PRELIMINARY | DESIGN REVIEW | PERMIT SUBMITTAL | CONSTRUCTION DOCUMENTS

DRAWN BY | DESIGNED BY | CHECKED BY | PROJECT NO. 50521

Sambatek www.sambatek.com
Engineering | Surveying | Planning | Environmental

LANDSCAPE DETAILS AND NOTES

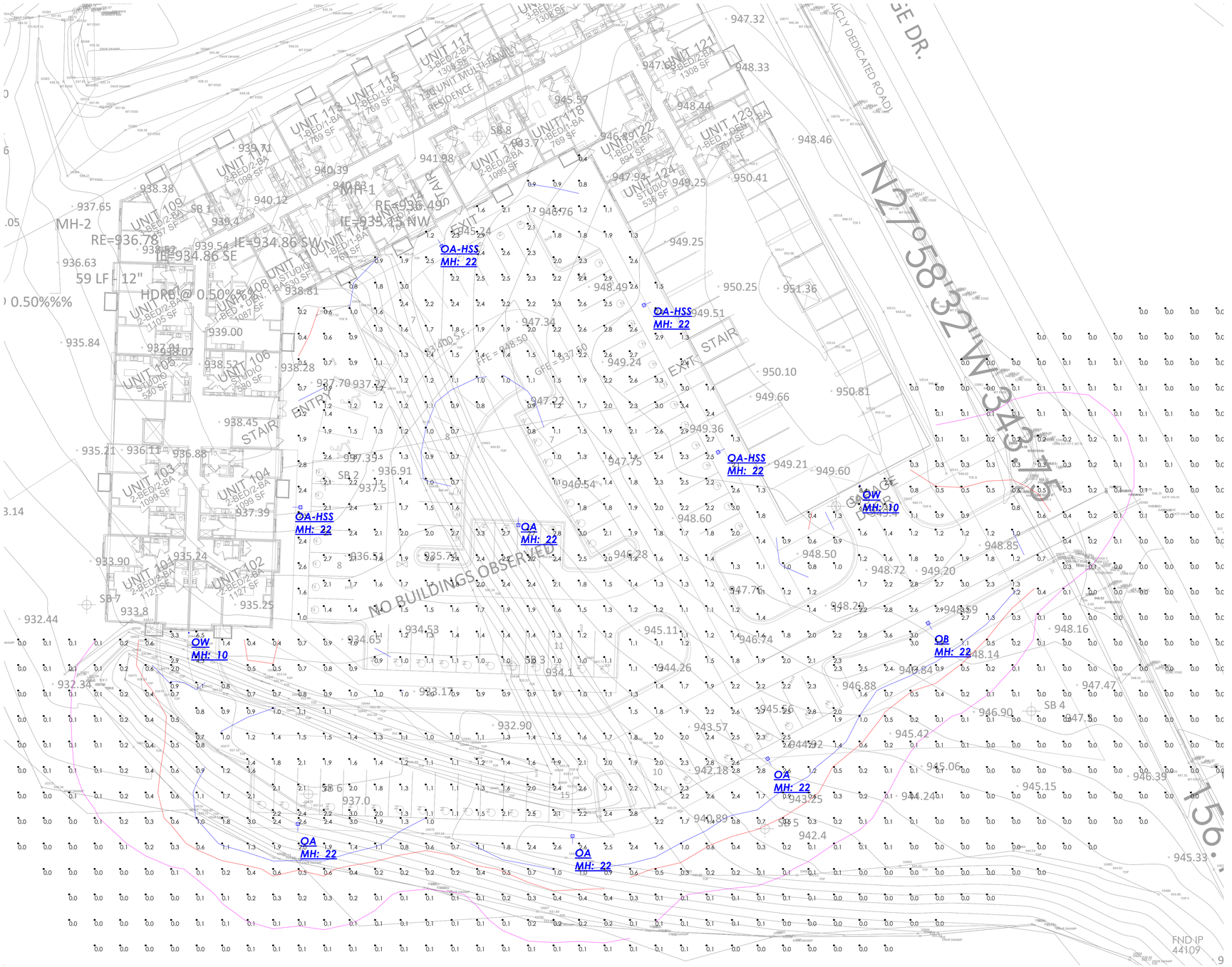
AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

SHEET L1.02 3 OF 10 REV.

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Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	0.43	8.4	0.0	N.A.	N.A.
PARKING AND DRIVE	Illuminance	Fc	1.84	6.5	0.7	2.63	9.29

Luminaire Schedule							
Symbol	Qty	Label	Manufacturer	Description	Arrangement	Lum. Lumens	Lum. Watts	LLF
	4	OA	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	PRV-C25-D-UNV-T4-BZ	Single	13140	96	0.900
	4	OA-HSS	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	PRV-C25-D-UNV-T4-BZ-HSS	Single	11933	96	0.900
	1	OB	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	PRV-C25-D-UNV-T3-BZ	Single	13183	96	0.900
	2	OW	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	AXCS2A	Single	2561	20.7	0.900

1. Standard Reflectance of 80/50/20 unless noted otherwise
2. Not a Construction Document, for Design purposes only
3. Standard indoor calc points @ 30" A.F.F. unless noted otherwise
4. Standard outdoor calc points @ Grade unless noted otherwise
5. Egress calc points @ 0" A.F.F.
6. Mlazgar Associates assumes no responsibility for installed light levels due to field conditions, etc.

MLAZGAR ASSOCIATES
16350 W. GLENDALE DR.
NEW BERLIN, WI 53151
(p) 414-943-1915
(f) 952-943-8088
www.mlazgar.com

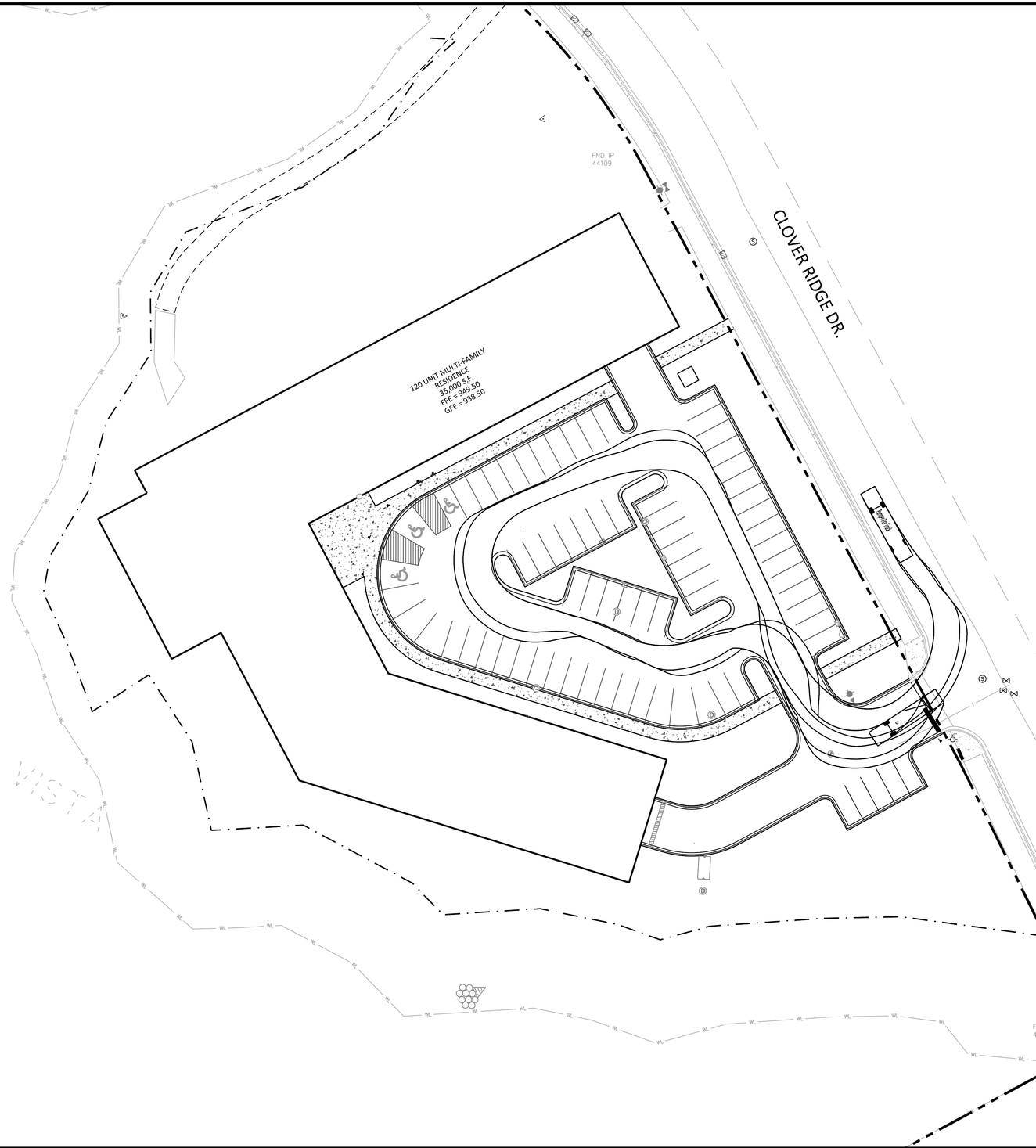
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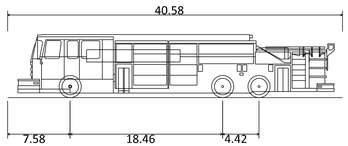
Revisions

RLMA Project #:123005
Drawn By:MB
Date:2/1/2022
Scale:1"=20'-0"

PHOTOMETRIC SITE PLAN

CHASKA SITE
CHASKA, MN





Chaska - Ladder Truck

Overall Length	40.580ft
Overall Width	10.500ft
Overall Body Height	7.647ft
Min Body Ground Clearance	0.558ft
Track Width	7.610ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	36.00°

NORTH

SCALE 0 30 60 IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Brian W. Frank

Date _____ License # _____

PRELIMINARY | DESIGN REVIEW | PERMIT SUBMITTAL | CONSTRUCTION DOCUMENTS

DRAWN BY KLS | DESIGNED BY | CHECKED BY | PROJECT NO. 50521

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FIRE TRUCK TURNING EXHIBIT

AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

SHEET A 1 OF 1 REV.

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DEVELOPMENT SUMMARY

AREA	
GROSS SITE AREA	552,066 SF 12.67 AC
SETBACKS	
FRONT YARD	20FEET
REAR YARD	50 FEET
SIDE YARD	20 FEET
MINIMUM LOT SIZE	2,500 SF
ZONING	
EXISTING ZONING	UNZONED
PROPOSED ZONING	R-3: MULTIPLE FAMILY RESIDENCE
BUILDING REQUIREMENTS	0.40 RATIO
MINIMUM FLOOR AREA	45 FT
MAXIMUM BUILDING HEIGHT	
PARKING SUMMARY	(2 STALLS PER UNIT) 238 STALLS
TOTAL PARKING REQUIRED	(1 STALLS PER UNIT) 113 STALLS
COVERED PARKING PROVIDED	183 STALLS
TOTAL PARKING PROVIDED	113 STALLS
COVERED PARKING PROVIDED	70 STALLS
SURFACE LOT PARKING PROVIDED	

OUTLOT B

DRAINAGE & UTILITY EASEMENT OVER ALL OF OUTLOT B

AVERAGE BUFFER LINE

WETLAND CLASSIFICATION: MANAGE 3
16' AVERAGE & PERMANENT WETLAND BUFFER
10' BUILDING SETBACK
26' TOTAL

10' BUILDING SETBACK

SWAMP AREA

SKIMMER: 938.97

AT GRADE

119 UNIT MULTI-FAMILY RESIDENCE
35,000 S.F.
FFE = 948.50
GFE = 937.50

SB 8 939.7

SB 1 939.4

FES: 30IN RCP 936.38

FES: 18IN RCP 934.15

FES: 15IN RCP 934.45

RE: 943.30
IE: 939.01 N
IE: 934.88 SW
IE: 936.28 SE

RE: 943.22
IE: 939.72

FND IP 44109

RE: 945.54
IE: 928.74 N/S

CLOVER RIDGE DR

(PUBLIC - UNDEDICATED ROAD)

RE: 944
IE: 937.74 N/S

2555.2 1/4"

6' Temporary Construction Fencing - Full Perimeter of the Site

Construction/ Gate/Entrance

Sign to be placed facing Northwest

NO CONSTRUCTION TRAFFIC BEYOND THIS POINT

Sign(s) sold separately

RE: 948.69
IE: 927.65
NW/SE

SB 9 949.4

SB X 947.3

S26°09'27"E

RE: 945.68
FROZEN
SHUT

RE: 945.41
TOP OF SNOW

FND IP 44109

FES: 18IN RCP 939.81

20' BUILDING SETBACK

AVERAGE BUFFER LINE

MINIMUM BUFFER LINE

50.0'

20' BUILDING SETBACK

GARAGE ENTRANCE

SB 3 934.1

SB 2 937.5

SB 7 933.8

SB 6 937.0

SB 5 942.4

NO BUILDINGS OBSERVED

WETLAND CLASSIFICATION: UNIQUE
50' PERMANENT WETLAND BUFFER
20' BUILDING SETBACK
70' TOTAL

AVERAGE BUFFER LINE

MINIMUM BUFFER LINE

WEST LINE OF THE SW QUARTER OF SECTION 30, TWP 116, RNG 24

CROSSES AND G WEST LINE (1)

SW 1/4

SECTION 30

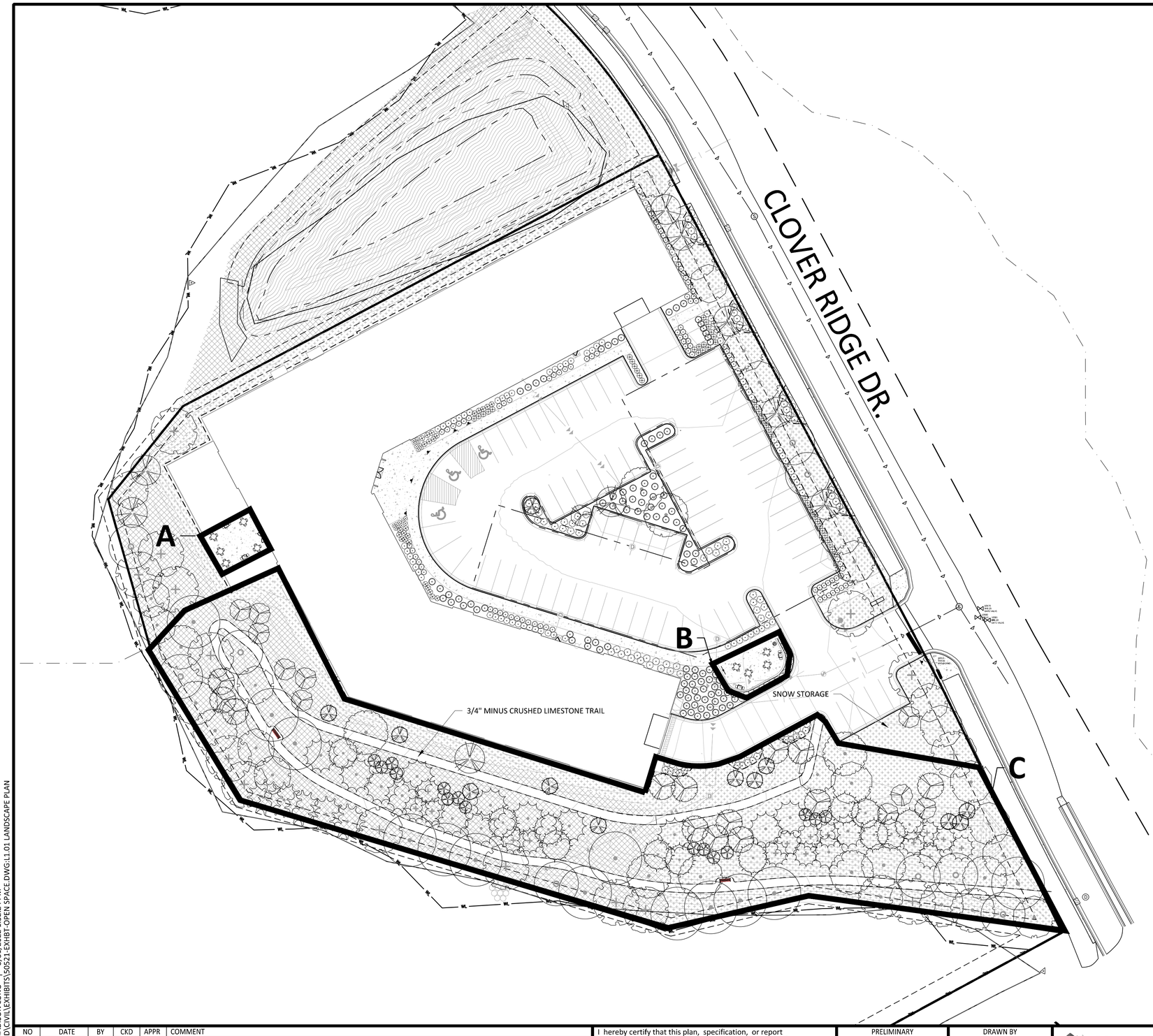
PIONEER

VISTA

TOWNSHIP 116

NORTH

SCALE 0 30 60 IN FEET



LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
EASEMENT		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		WL
TREELINE		
LANDSCAPE EDING		
STORM SEWER	D	
SANITARY SEWER	S	S
FORCEMAIN (SAN.)	LS	FM S
WATERMAIN		
YARDDRAIN		
LIMITS OF DISTURBANCE		

STANDARD DUTY ASPHALT PAVING

CONCRETE PAVING

CONCRETE SIDEWALK

TREE PROTECTION FENCE — TP —

TREE TO BE REMOVED

SIGN

PIPE BOLLARD

RIPRAP

CHASKA LANDSCAPE CODE

OPEN SPACE A

- 750 SF
- THIS OPEN SPACE WILL CONSIST OF ROOF TOP PATIO SPACE WITH OUTDOOR FURNITURE, FOR OUTDOOR DINNING AND GATHERING.

OPEN SPACE B

- 611 SF
- THIS OPEN SPACE WILL CONSIST OF A GRILL STATION AND PICNIC TABLES.

OPEN SPACE C

- 41,891 SF
- THIS OPEN SPACE WILL CONSIST OF A BERM WITH A HIGH CONCENTRATION OF CONIFERS AND A LARGE FLAT GRASS AREA. THIS AREA WILL ALSO HAVE A WALKING TRAIL AND BENCHES TROUGH THE WOODLANDS AREA. THIS OPEN SPACE WILL BE USED FOR WINTER RECREATIONAL ACTIVITIES SUCH AS SLEDDING, AND SUMMER ACTIVITIES SUCH AS OPEN FIELD BALL SPORTS, AND FRISBEE.

OPEN SPACE CALCULATION	REQUIRED	PROPOSED
BALCONIES (2,560 SF)		
OPEN SPACE A,B,AND C (43,252 SF)		
TOTAL (CALCULATION: 45,812 SF/ 163,501 SF)	15% (24,525 SF)	28% (45,812 SF)

PLANT SCHEDULE

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	AB	Acer freemanii 'Autumn Blaze' / Autumn Blaze Maple	B & B	5" Cal		9
	SG	Acer freemanii 'Sienna Glen' / Sienna Glen Maple	B & B	3.5" Cal.		13
	WS	Betula papyrifera 'Whitespire' / Whitespire Birch	B & B	2.5"Cal		9
	HL	Gleditsia triacanthos 'Skyline' / Skyline Honey Locust	B & B	3"Cal.		15
	KC	Gymnocladus dioica 'Espresso' / Kentucky Coffeetree	B & B	4.5" CAL.		10
	SO	Quercus bicolor / Swamp White Oak	B & B	3"Cal.		15
	BL	Tilia americana 'Boulevard' / Boulevard Linden	B & B	4"CAL		11
CONIFERS	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	BF	Abies balsamea / Balsam Fir	B & B		6'	15
	LR	Larix laricina / Tamarack	B & B		6	5
	NS	Picea abies / Norway Spruce	B & B		6'	12
	BS	Picea glauca densata / Black Hills Spruce	B & B		6'	15
	PW	Pinus strobus 'Fastigiata' / Pyramidal White Pine	B & B		6	15
ORN. TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	SB	Amelanchier canadensis 'Autumn Brilliance' / Autumn Brilliance Serviceberry	B & B	2"Cal		13
	RE	Cercis canadensis / Eastern Redbud	B & B	2"Cal		12
	IL	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	B & B	2"Cal		13
SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT			
	BH	Diervilla lonicera / Dwarf Bush Honeysuckle	5 gal			69
	LH	Hydrangea paniculata 'Jane' / Little Lime Hydrangea	5 gal			90
	CJ	Juniperus sabina 'Monna' / Calgary Carpet Juniper	5 gal			100
	PM	Pinus mugo 'Slowmound' / Mugo Pine	5 gal			28
	PT	Potentilla fruticosa 'Tango' TM / Fangs Potentilla	5 gal			94
	GL	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	5 gal			52
	GS	Spiraea japonica 'Goldflame' / Spirea	5 gal			37
PERENNIALS	CODE	BOTANICAL / COMMON NAME	CONT			
	SBA	Allium x 'Summer Beauty' / Summer Beauty Allium	1 gal			17
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT			
	33-261	MNDOT Seed Mix 33-261 / Ponds and Wet Areas	Seed			
	34-262	MNDOT Seed mix 34-262 / Wet Prairie	Seed			
	TLR HIG	Turf Sod Highland Sod / Sod	Sod			

NORTH

0 30 60

SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Print Name: Johnnie R. Workman

Date _____ License # _____

PRELIMINARY

DESIGN REVIEW

PERMIT SUBMITTAL

CONSTRUCTION DOCUMENTS

DRAWN BY

DESIGNED BY

CHECKED BY

PROJECT NO. 50521

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OPEN SPACE EXHIBIT

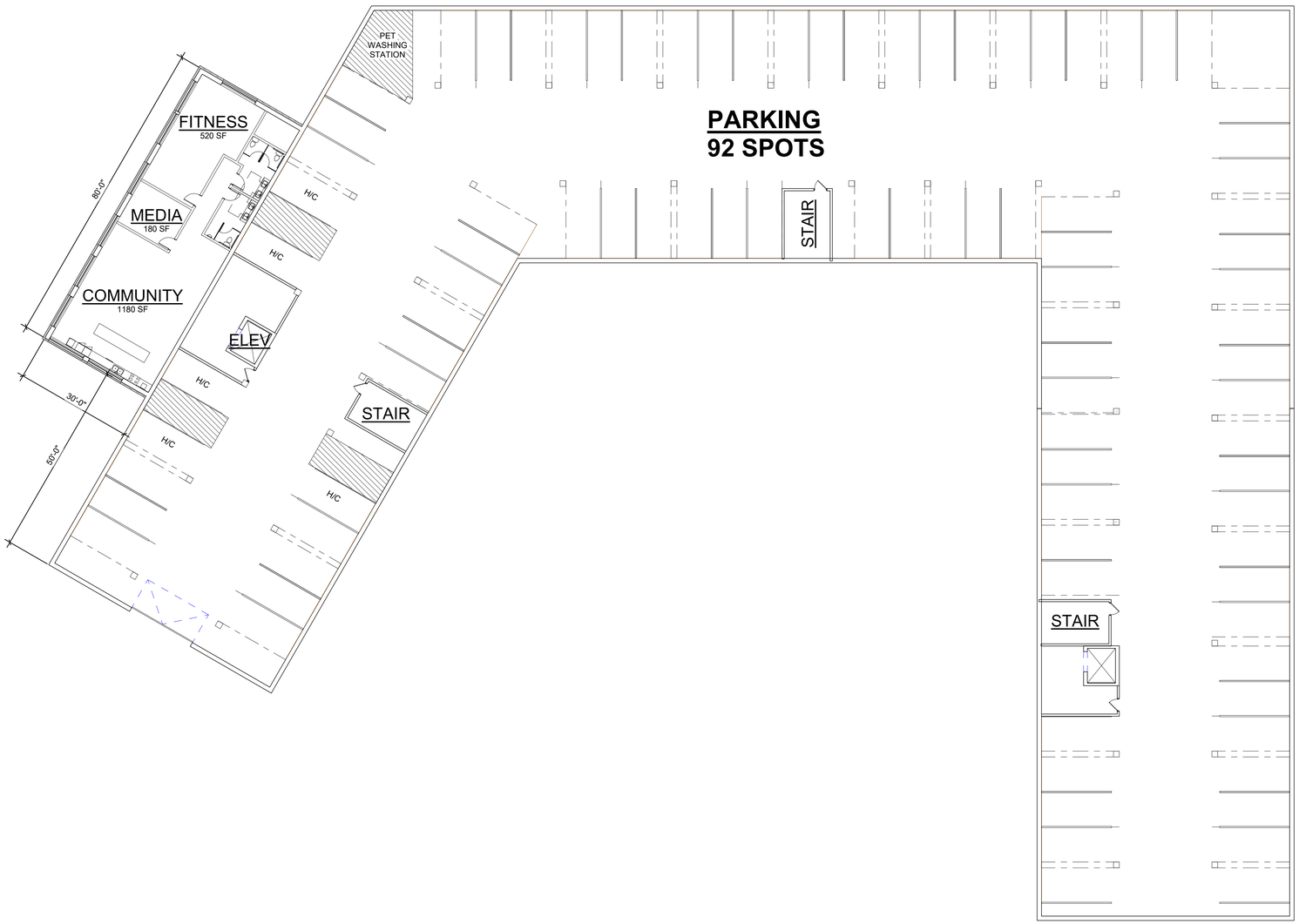
AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

SHEET 1
1 OF 1
REV.

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C:\PROJECTS\50521\CAD\CIVIL\EXHIBITS\50521-EXHBT-OPEN SPACE.DWG | 3/31/2022 1:32:24 PM | MADISON LONG (LMS TECH)



1 BASEMENT
SCALE: 1/16" = 1'-0"

PRELIMINARY- NOT FOR CONSTRUCTION

JCorp
1680 SW Ankeny Rd, #2D
Ankeny, IA 50023
Phone: (515) 597-5457
Fax: (515) 597-5461
www.jcorpdesignbuild.com

KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

REVISIONS:

01/28/2022

PROJECT NO: 21-043

CONTENTS:
BASEMENT

SHEET NO:
A101



UNIT SCHEDULE	
TYPE	COUNT
1-BED + DEN, 1-BA	20
1-BED/1-BA	30
2-BED/2-BA	44
3-BED/2-BA	16
STUDIO	10

Grand total: 120

1 1ST FLOOR
SCALE: 1/16" = 1'-0"

PRELIMINARY- NOT FOR CONSTRUCTION

JCorp
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Ankeny, IA 50023
Phone: (515) 597-5457
Fax: (515) 597-5461
www.jcorpdesignbuild.com

KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

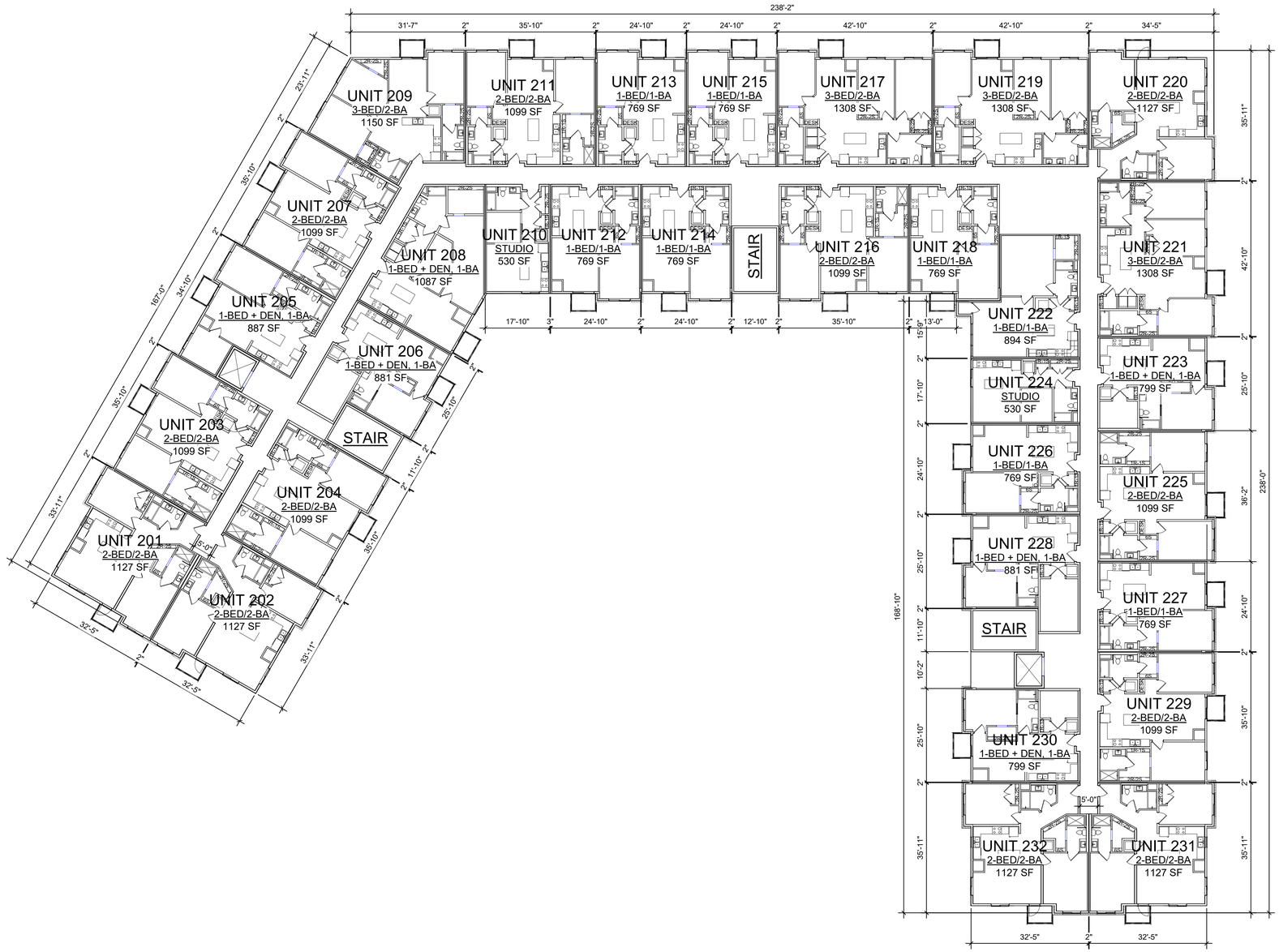
REVISIONS:

01/28/2022

PROJECT NO: 21-043

CONTENTS:
1ST FLOOR

SHEET NO:
A102



2 2ND FLOOR

SCALE: 1/16" = 1'-0"

PRELIMINARY- NOT FOR CONSTRUCTION

JCorp
1680 SW Ankeny Rd, #2D
Ankeny, IA 50023
Phone: (515) 597-5457
Fax: (515) 597-5461
www.jcorpdesignbuild.com

KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

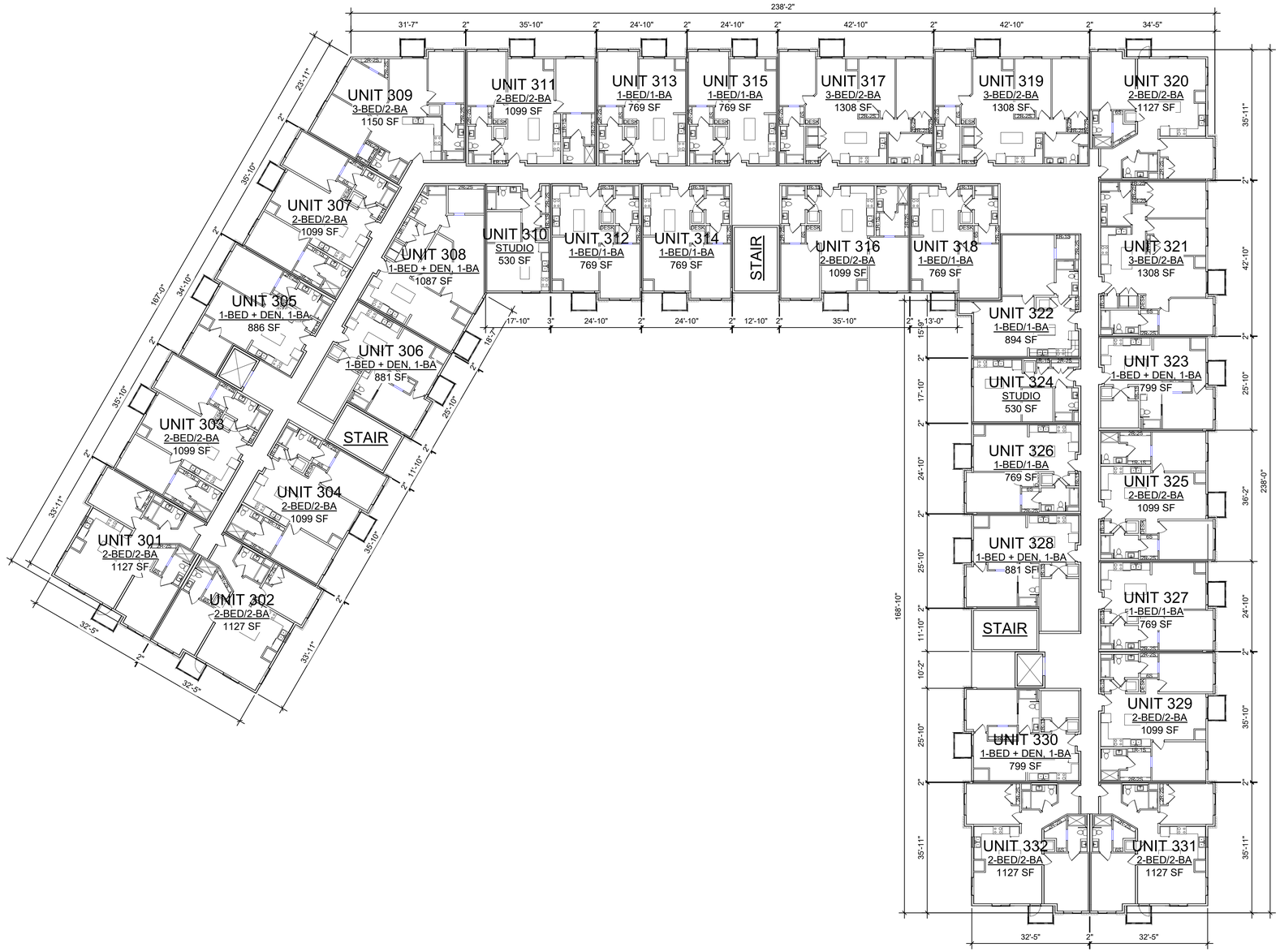
REVISIONS:

01/28/2022

PROJECT NO: 21-043

CONTENTS:
2ND FLOOR

SHEET NO:
A103



1 3RD FLOOR
SCALE: 1/16" = 1'-0"

PRELIMINARY- NOT FOR CONSTRUCTION

JCorp
1680 SW Ankeny Rd, #2D
Ankeny, IA 50023
Phone: (515) 597-5457
Fax: (515) 597-5461
www.jcorpdesignbuild.com

KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

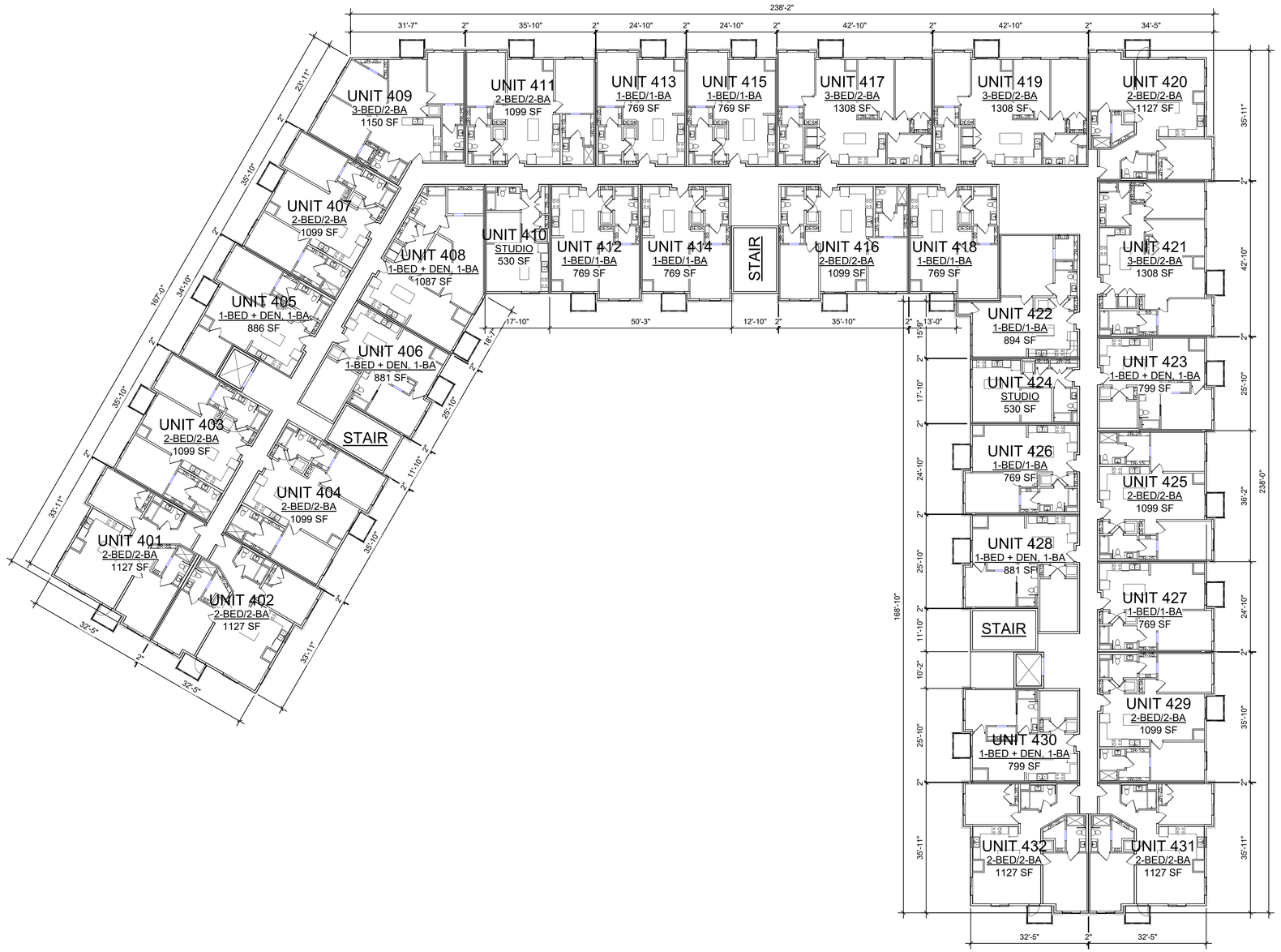
REVISIONS:

01/28/2022

PROJECT NO: 21-043

CONTENTS:
3RD FLOOR

SHEET NO:
A104



1 4TH FLOOR
SCALE: 1/16" = 1'-0"

PRELIMINARY- NOT FOR CONSTRUCTION

JCorp
1680 SW Ankeny Rd, #2D
Ankeny, IA 50023
Phone: (515) 597-5457
Fax: (515) 597-5461
www.jcorpdesignbuild.com

KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

REVISIONS:

01/28/2022

PROJECT NO: 21-043

CONTENTS:
4TH FLOOR

SHEET NO:
A105

MATERIAL SCHEDULE - EAST

Type Mark	Description	Area	Percentage
C1	Architectural Precast Concrete	553 SF	15%
S1	Fiber Cement Panel	650 SF	18%
S2	Fiber Cement Lap Siding - Dark	1212 SF	34%
S3	Fiber Cement Lap Siding - Cedar Look	151 SF	4%
GLAZING		1040 SF	29%



1 EAST ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL SCHEDULE - SOUTH

Type Mark	Description	Area	Percentage
C1	Architectural Precast Concrete	1942 SF	20%
S1	Fiber Cement Panel	2326 SF	25%
S2	Fiber Cement Lap Siding - Dark	2680 SF	28%
S3	Fiber Cement Lap Siding - Cedar Look	306 SF	3%
GLAZING		2338 SF	24%

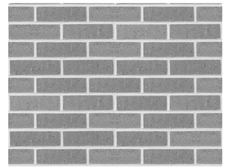


2 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL SCHEDULE - TOTAL

B1	Modular Brick	4859 SF	9%
C1	Architectural Precast Concrete	6531 SF	12%
S1	Fiber Cement Panels	12480 SF	23%
S2	Fiber Cement Lap Siding - Dark	12968 SF	24%
S3	Fiber Cement Lap Siding - Cedar Look	2322 SF	4%
GLAZING		14116 SF	27%

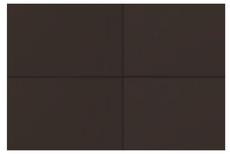
Modular Brick



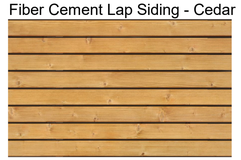
Fiber Cement Lap Siding - Dark



Fiber Cement Panels



Fiber Cement Lap Siding - Cedar



Architectural Precast Concrete



MATERIAL SCHEDULE - SOUTHWEST

Type Mark	Description	Area	Percentage
B1	Modular Brick	2407 SF	31%
S1	Fiber Cement Panel	1866 SF	24%
S2	Fiber Cement Lap Siding - Dark	729 SF	9%%
S3	Fiber Cement Lap Siding - Cedar Look	531 SF	7%%
GLAZING		2310 SF	29%



3 SOUTHWEST ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL SCHEDULE - NORTHWEST

Type Mark	Description	Area	Percentage
B1	Modular Brick	1000 SF	8%%
C1	Architectural Precast Concrete	1720 SF	14%
S1	Fiber Cement Panel	2588 SF	21%
S2	Fiber Cement Lap Siding - Dark	2945 SF	24%
S3	Fiber Cement Lap Siding - Cedar Look	528 SF	4%
GLAZING		3371 SF	28%



4 NORTHWEST ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL SCHEDULE - NORTHEAST - 1

Type Mark	Description	Area	Percentage
C1	Architectural Precast Concrete	631 SF	21%
S1	Fiber Cement Panel	450 SF	15%
S2	Fiber Cement Lap Siding - Dark	955 SF	32%
S3	Fiber Cement Lap Siding - Cedar Look	80 SF	3%
GLAZING		850 SF	29%



5 NORTHEAST ELEVATION - 1
SCALE: 1/16" = 1'-0"

PRELIMINARY- NOT FOR CONSTRUCTION

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Ankeny, IA 50023
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Fax: (515) 597-5461
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KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

REVISIONS:

03/07/2022

PROJECT NO: 21-043

CONTENTS:
ELEVATIONS

SHEET NO:
A201

MATERIAL SCHEDULE - SOUTHEAST

Type Mark	Description	Area	Percentage
C1	Architectural Precast Concrete	1685 SF	23%
S1	Fiber Cement Panel	1918 SF	27%
S2	Fiber Cement Lap Siding - Dark	1542 SF	21%
S3	Fiber Cement Lap Siding - Cedar Look	203 SF	3%
GLAZING		1857 SF	26%



1 SOUTHEAST ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL SCHEDULE - NORTHEAST - 2

Type Mark	Description	Area	Percentage
B1	Modular Brick	1452 SF	44%
S1	Fiber Cement Panel	991 SF	20%
S2	Fiber Cement Lap Siding - Dark	113 SF	3%
S3	Fiber Cement Lap Siding - Cedar Look	219 SF	6%
GLAZING		828 SF	23%



2 NORTHEAST ELEVATION - 2
SCALE: 1/16" = 1'-0"

MATERIAL SCHEDULE - NORTH

Type Mark	Description	Area	Percentage
S1	Fiber Cement Panel	1589 SF	26%
S2	Fiber Cement Lap Siding - Dark	2792 SF	45%
S3	Fiber Cement Lap Siding - Cedar Look	304 SF	5%
GLAZING		1522 SF	24%

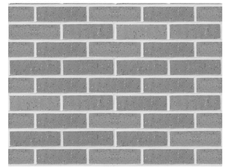


3 NORTH ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL SCHEDULE - TOTAL

B1	Modular Brick	4859 SF	9%
C1	Architectural Precast Concrete	6531 SF	12%
S1	Fiber Cement Panels	12480 SF	23%
S2	Fiber Cement Lap Siding - Dark	12968 SF	24%
S3	Fiber Cement Lap Siding - Cedar Look	2322 SF	4%
GLAZING		14116 SF	27%

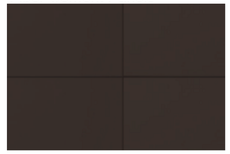
Modular Brick



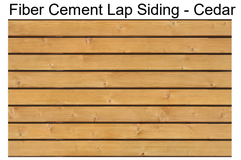
Fiber Cement Lap Siding - Dark



Fiber Cement Panels



Fiber Cement Lap Siding - Cedar



Architectural Precast Concrete



PRELIMINARY- NOT FOR CONSTRUCTION

JCorp

1680 SW Ankeny Rd, #2D

Ankeny, IA 50023

Phone: (515) 597-5457

Fax: (515) 597-5461

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KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

REVISIONS:

03/07/2022

PROJECT NO: 21-043

CONTENTS:
ELEVATIONS

SHEET NO:
A202



1 **EAST AERIAL**
SCALE:



2 **MAIN ENTRY**
SCALE:



3 **NORTH AERIAL**
SCALE:

PRELIMINARY- NOT FOR CONSTRUCTION

JCorp

1680 SW Ankeny Rd, #2D
Ankeny, IA 50023
Phone: (515) 597-5457
Fax: (515) 597-5461
www.jcorpdesignbuild.com

KEY PLAN

PROJECT:
Clover Ridge Apartments
Chaska, MN

REVISIONS:

03/31/2022

PROJECT NO: 21-043

CONTENTS:
3D Views

SHEET NO:
A203

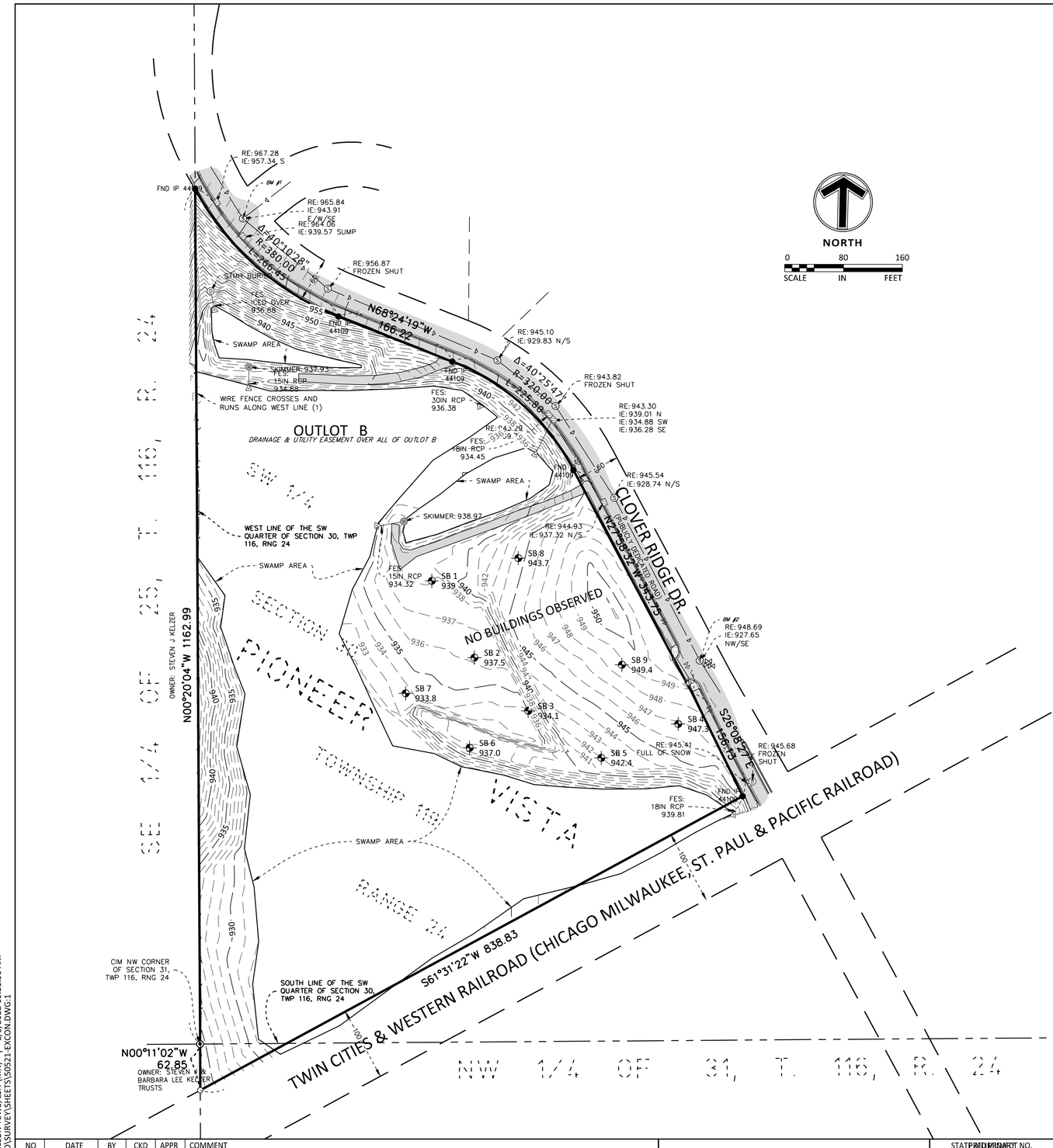


This map was created using Carver County's Geographic Information Systems (GIS), it is a compilation of information and data from various City, County, State, and Federal offices. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Carver County is not responsible for any inaccuracies contained herein.

Map Date: 1/31/2022

EXISTING CONDITIONS SURVEY

A SURVEY OF LANDS LOCATED IN THE SW 1/4 OF SECTION 30 AND THE NW 1/4 OF SECTION 31
IN TWP. 119, RNG. 24, CITY OF CHASKA, CARVER COUNTY, MINNESOTA



PROPERTY SUMMARY

1. SUBJECT PROPERTIES ADDRESS IS UNASSIGNED, ITS PROPERTY IDENTIFICATION NUMBER IS 30.5000.560.
2. THE GROSS AREA OF THE SUBJECT PROPERTY IS 11.9851 Acres or 522,071 SQUARE FEET.
3. THE SUBJECT PROPERTY IS ZONED OPEN DEVELOPMENT, PER CITY OF CHASKA ZONING MAP ON THE CITY OF CHASKA WEBSITE ACCESSED 01/05/2021.

SURVEY NOTES

1. THE BEARING SYSTEM IS BASED ON THE CARVER COUNTY COORDINATE SYSTEM, NAD85 (1986 ADJ.)
2. FIELD WORK WAS COMPLETED ON 01/02/2022
3. THIS SURVEY WAS PERFORMED UNDER THE COVER OF SIGNIFICANT SNOW. THE SURVEYOR MAKES NO GUARANTEE THAT ALL IMPROVEMENTS ARE SHOWN HEREON.

BENCHMARKS

1. THE VERTICAL DATUM IS BASED ON NAVD88. THE ORIGINATING BENCH MARK IS MNDOT TOWNGOLF, REFERENCED FROM THE MNDOT GEODETIC DATABASE.

BENCHMARK #1 SANITARY MANHOLE N. END OF SITE	ELEV.=965.84
BENCHMARK #2 SANITARY MANHOLE S. END OF SITE	ELEV.=948.69

LEGEND

- FOUND MONUMENT
- SET MONUMENT MARKED
- ELECTRIC METER
- LIGHT
- AIR CONDITIONER
- GUY ANCHOR
- HANDICAP STALL
- UTILITY POLE
- POST
- SIGN
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- FLARED END SECTION
- TELEPHONE PEDESTAL
- ELECTRIC TRANSFORMER
- GAS METER
- OVERHEAD WIRE
- CHAIN LINK FENCE
- IRON FENCE
- WIRE FENCE
- WOOD FENCE
- EASEMENT LINE
- SETBACK LINE
- RESTRICTED ACCESS
- CONCRETE CURB
- BUILDING LINE
- BUILDING CANOPY
- STANDARD DUTY ASPHALT PAVING
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- LANDSCAPE SURFACE

NO	DATE	BY	CKD	APPR	COMMENT

Print Name: _____

Date _____ License # _____

STATE PROJECT NO.
TAPED PROJECT NO.
STATE PROJECT NO.
TAPED PROJECT NO.
COUNTY PROJECT NO.
CONSTRUCTION DOCUMENTS

DRAWN BY DJT
DESIGNED BY
CHECKED BY JCW
PROJECT NO. 50521

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EXISTING CONDITONS
AV DEVELOPMENT, LLC
CHASKA MULTIFAMILY
1/05/2021
CHASKA, CARVER COUNTY, MINNESOTA

SHEET
##
OF
REV. #

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CLOVER RIDGE APARTMENTS

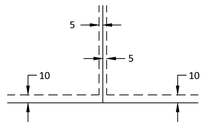
PRELIMINARY PLAT

A SURVEY OF LANDS LOCATED IN THE SW 1/4 OF SECTION 30 AND THE NW 1/4 OF SECTION 31
IN TWP. 119, RNG. 24, CITY OF CHASKA, CARVER COUNTY, MINNESOTA

NORTH

0 60 120
SCALE IN FEET

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:
(NOT TO SCALE)



BEING 5 FEET IN WIDTH AND ADJOINING LOT LINES AND BEING 10 FEET IN WIDTH AND ADJOINING PUBLIC WAYS, UNLESS OTHERWISE INDICATED ON THIS PLAT.

DESCRIPTION

THE SUBJECT PROPERTY IS DESCRIBED AS:
OUTLOT B, PIONEER VISTA
CARVER COUNTY, MINNESOTA
(ABSTRACT PROPERTY)

TO BE PLATTED AS:
LOT 1, BLOCK 1, CLOVER RIDGE APARTMENTS
OUTLOT A, CLOVER RIDGE APARTMENTS
CARVER COUNTY, MINNESOTA
(ABSTRACT PROPERTY)

PROPERTY SUMMARY

1. SUBJECT PROPERTY'S ADDRESS IS UNASSIGNED, ITS PROPERTY IDENTIFICATION NUMBER IS 30.5000.560.

2. THE AREAS OF THE SUBJECT PROPERTY ARE AS FOLLOWS:

TOTAL AREA:	11.986 ACRES OR 522,101 SQUARE FEET
LOT 1:	3.232 ACRES OR 140,797 SQUARE FEET
OUTLOT A:	8.754 ACRES OR 381,304 SQUARE FEET

3. THE SUBJECT PROPERTY IS ZONED OPEN DEVELOPMENT, PER CITY OF CHASKA ZONING MAP ON THE CITY OF CHASKA WEBSITE ACCESSED 01/05/2021.

SURVEY NOTES

1. THE BEARING SYSTEM IS BASED ON THE CARVER COUNTY COORDINATE SYSTEM, NAD83 (1986 ADJ.)

2. FIELD WORK WAS COMPLETED ON 01/02/2022

3. THIS SURVEY WAS PERFORMED UNDER THE COVER OF SIGNIFICANT SNOW. THE SURVEYOR MAKES NO GUARANTEE THAT ALL IMPROVEMENTS ARE SHOWN HEREON.

4. THE SUBJECT PROPERTY LIES WITHIN FLOOD PLAIN ZONE X, PER FEMA, FIRM MAP NO.27019C0209D DATED 12/21/2018.

5. THERE ARE NO BUILDING ON THE SUBJECT PROPERTY.

BENCHMARKS

1. THE VERTICAL DATUM IS BASED ON NAVD88. THE ORIGINATING BENCH MARK IS MNDOT TOWNGOLF, REFERENCED FROM THE MNDOT GEODETIC DATABASE.

BENCHMARK #1 SANITARY MANHOLE N. END OF SITE	ELEV.=965.84
BENCHMARK #2 SANITARY MANHOLE S. END OF SITE	ELEV.=948.69

LEGEND

- FOUND MONUMENT
- SET MONUMENT MARKED
- ELECTRIC METER
- LIGHT
- AIR CONDITIONER
- GUY ANCHOR
- HANDICAP STALL
- UTILITY POLE
- POST
- SIGN
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- FLARED END SECTION
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- STANDARD DUTY ASPHALT PAVING
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- LANDSCAPE SURFACE

NO	DATE	BY	CKD	APPR	COMMENT
A	04/08/2022	DJT	MRS	MRS	LOT LINE AND PLAT NAME

I hereby certify that this plan, survey, or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Print Name: Mark R. Salo

PRELIMINARY

Date 04/08/2022 License # 43933

STATE AID PROJECT NO.	
STATE PROJECT NO.	
COUNTY PROJECT NO.	
CITY PROJECT NO.	
DRAWN BY	DJT
DESIGNED BY	
CHECKED BY	MRS
PROJECT NO.	50521

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PRELIMINARY PLAT

AV DEVELOPMENT, LLC
CHASKA MULTIFAMILY
1/31/2021
CHASKA, CARVER COUNTY, MINNESOTA

SHEET 1 OF 1 REV.

C:\SAMBATEK-FS1\PROJECTS\PROJECTS\50521\CAD\SURVEY\SHEETS\50521-PPLAT.DWG:1 | 4/8/2022 1:16:20 PM | DILLON TEWS, LSIT (MN) | LMS TECH)

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EMAIL
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ARCHITECT
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EMAIL
CONTACT:

LANDSCAPE ARCHITECT
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12800 WHITEWATER DRIVE, SUITE 300
MINNETONKA, MN 55343
TEL 763-476-6010
EMAIL: JWORKMAN@SAMBATEK.COM
CONTACT: JOHN WORKMAN

Preliminary Plans

for

Clover Ridge Apartments

Chaska, Minnesota

Presented by:
AV Development, LLC

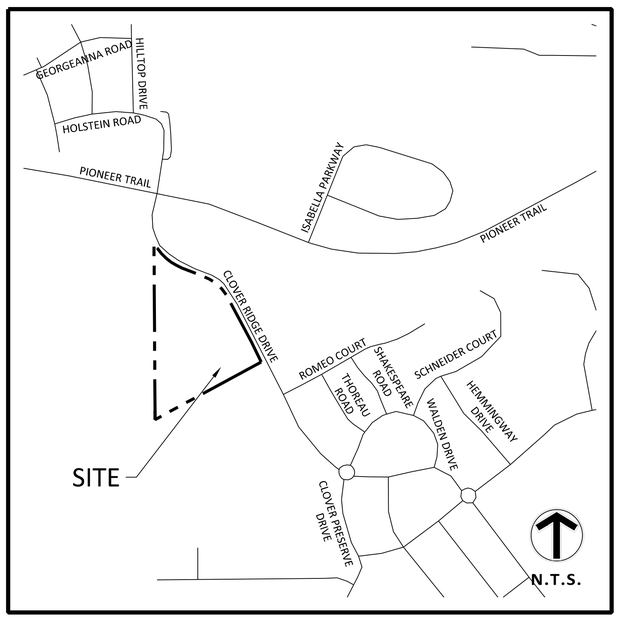
BENCHMARKS

BM NO. 1
SANITARY MANHOLE N. END OF SITE.
ELEV.=965.84

BM NO. 2
SANITARY MANHOLE S. END OF SITE
ELEV.=948.69

SHEET INDEX

SHEET	DESCRIPTION
C1.01	TITLE
C2.01	DEMOLITION PLAN
C3.01	SITE PLAN
C4.01	GRADING PLAN
C6.01	UTILITY PLAN
C9.01	DETAILS
C9.02	DETAILS
L1.01	LANDSCAPE PLAN
L1.02	LANDSCAPE DETAILS AND NOTES



VICINITY MAP
NO SCALE

GOVERNING SPECIFICATIONS

CITY OF CHASKA SPECIFICATIONS (2019)
CITY ENGINEER'S ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS (2013)
MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION (2018 EDITION)

NO	DATE	BY	CKD	APPR	COMMENT

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Print Name: Brian W. Frank

Date _____ License # _____

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TITLE

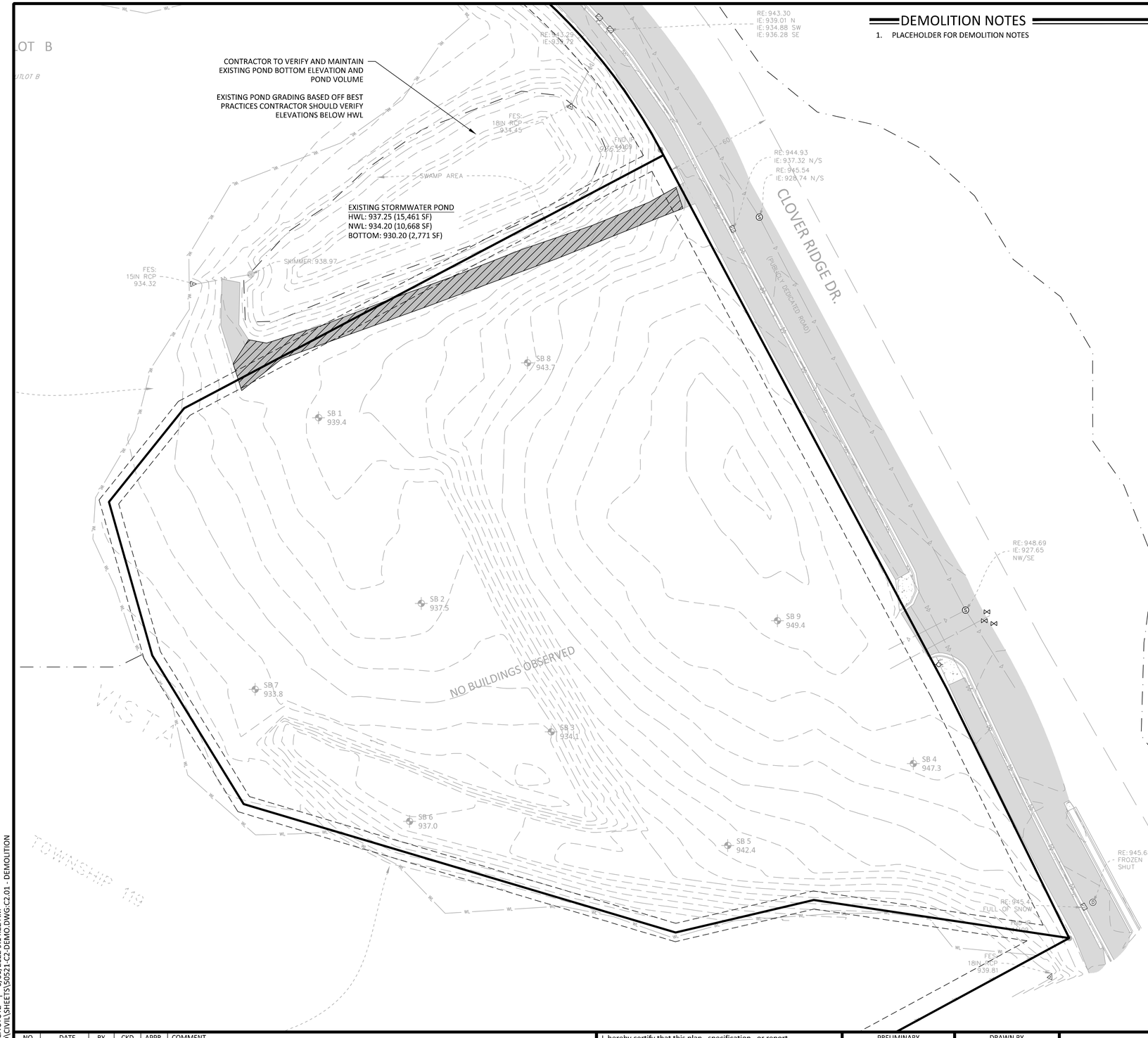
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CHASKA, MINNESOTA

SHEET
C1.01
1 OF 10
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DEMOLITION NOTES

1. PLACEHOLDER FOR DEMOLITION NOTES

LEGEND

EXISTING

- GAS METER
- HYDRANT
- LIGHT
- STORM SEWER
- DRAINTILE
- WATERMAIN
- FORCEMAIN (SAN.)
- SANITARY SEWER
- OVERHEAD ELECTRIC WIRE
- UNDERGROUND TELEPHONE
- UNDERGROUND CABLE TV
- ELECTRIC
- UNDERGROUND GAS LINE
- WIRE FENCE
- IRON FENCE
- WOOD FENCE
- CHAIN LINK FENCE
- STONE RETAINING WALL
- SPRINKLER HEAD
- SPRINKLER VALVE
- GUARDRAIL
- HANDRAIL
- TREE LINE
- GUARD POST
- SIGN
- CONCRETE CURB
- BUILDING LINE
- REMOVE UTILITY STRUCTURE
- REMOVE EXISTING CONCRETE CURB
- SAW CUT EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING CONCRETE PAVEMENT
- REMOVE EXISTING GRAVEL DRIVE
- REMOVE EXISTING LANDSCAPING
- REMOVE EXISTING BUILDING
- DEMO TREE
- REMOVE EXISTING (DEMO LG)
- REMOVE UTILITY STRUCTURE
- DEMO LIGHT
- REMOVE CHAIN LINK FENCE

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IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NORTH

SCALE 0 30 60 IN FEET

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DEMOLITION PLAN

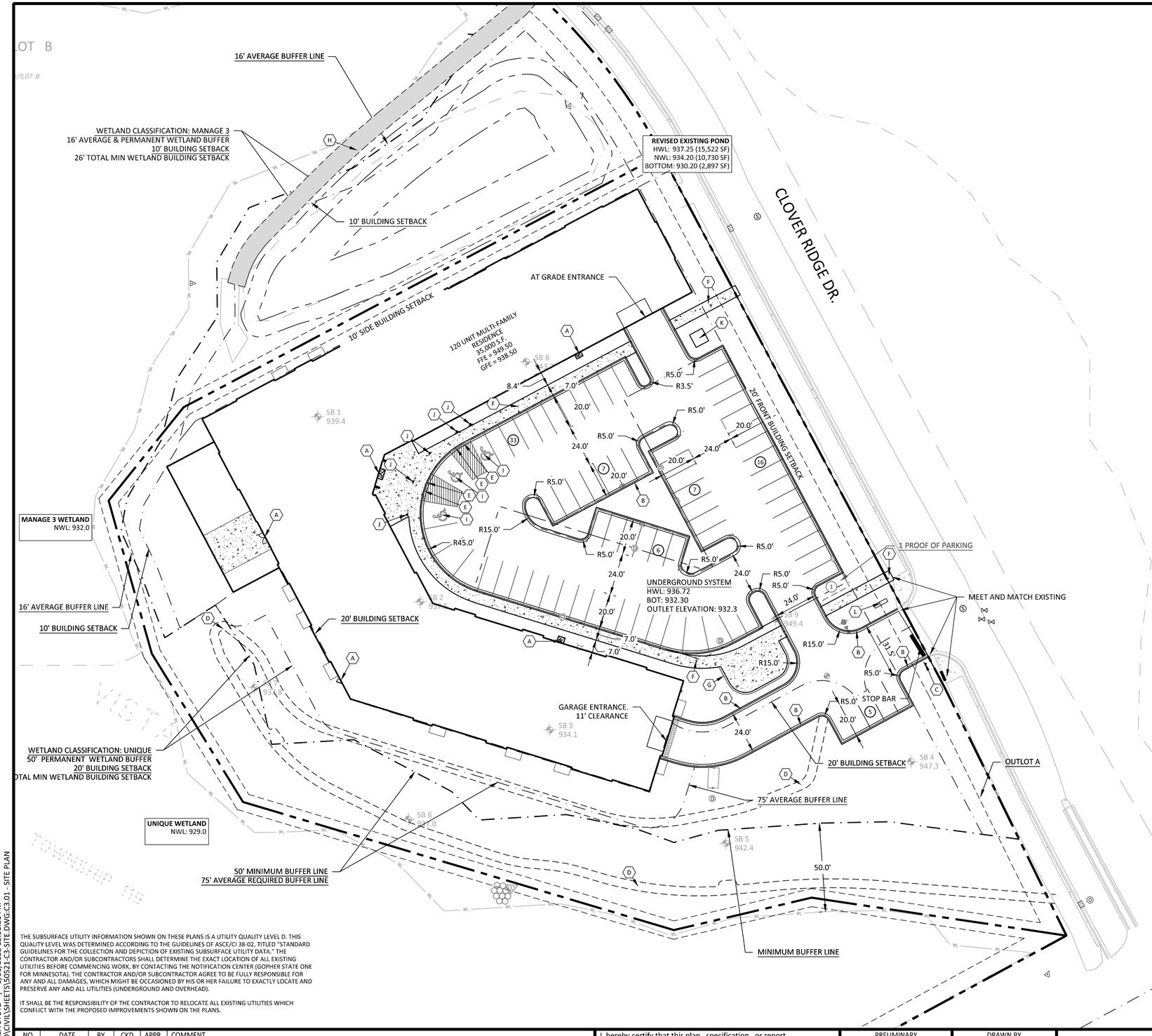
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LEGEND

PROPOSED	EXISTING	
		BOUNDARY LINE
		CONCRETE CURB
		EASEMENT LINE
		BUILDING LINE
		RETAINING WALL
	WT	WET LAND
		TREE LINE
		SAW CUT LINE
		SIGN
		BOLLARD
##		REGULAR PARKING STALL COUNT
1		KEYNOTE

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)

DEVELOPMENT SUMMARY

AREA	
GROSS SITE AREA	552,066 SF 12.67 AC
SETBACKS	
FRONT YARD	30 FEET, 20 FEET REQUESTED
REAR YARD	50 FEET
SIDE YARD	10 FEET
ZONING	
EXISTING ZONING	R: RURAL
PROPOSED ZONING	PRD: PLANNED RESIDENTIAL DEVELOPMENT
BUILDING REQUIREMENTS	
MINIMUM FLOOR AREA	0.50
MAXIMUM BUILDING HEIGHT	45 FT
PARKING SUMMARY	
TOTAL PARKING REQUIRED (PER ORDINANCE)	240 STALLS
TOTAL PARKING REQUIRED (PER PARKING DEMAND MEMO)	119 STALLS
TOTAL PARKING PROVIDED	195 STALLS
COVERED PARKING PROVIDED	120 STALLS
SURFACE LOT PARKING PROVIDED	74 STALLS
PROOF OF PARKING	1 STALLS

DEVELOPMENT NOTES

1. NOTES PLACEHOLDER

KEY NOTES

- A. BUILDING, STOOPS, STAIRS (SEE ARCHITECTURAL PLANS)
- B. B-612 CONCRETE CURB AND GUTTER (SEE DETAIL 01, SHEET C9.02)
- C. STOP SIGN
- D. CRUSHED AGGREGATE PATH
- E. FLAT CURB SECTION (SEE DETAIL 06, SHEET C9.02)
- F. CONCRETE SIDEWALK (SEE DETAIL 02, SHEET C9.02)
- G. SEGMENTAL BLOCK RETAINING WALL
- H. GRASS PAVERS ACCESS TRAIL
- I. ACCESSIBLE STALL STRIPING (SEE DETAIL 04, SHEET C9.02)
- J. ACCESSIBLE PARKING SIGN (SEE DETAIL 05, SHEET C9.02)
- K. TRANSFORMER
- L. MONUMENT SIGN

WETLAND DEVELOPMENT SUMMARY

REQUIRED BUFFER	
MANAGE 3	6,816 SF
UNIQUE	39,832 SF
TOTAL	46,648 SF
PROVIDED BUFFER	
MANAGE 3	6,816 SF
UNIQUE	41,522 SF
TOTAL	48,338 SF

NORTH

0 30 60

SCALE IN FEET

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NO	DATE	BY	CKD	APPR	COMMENT

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SITE PLAN

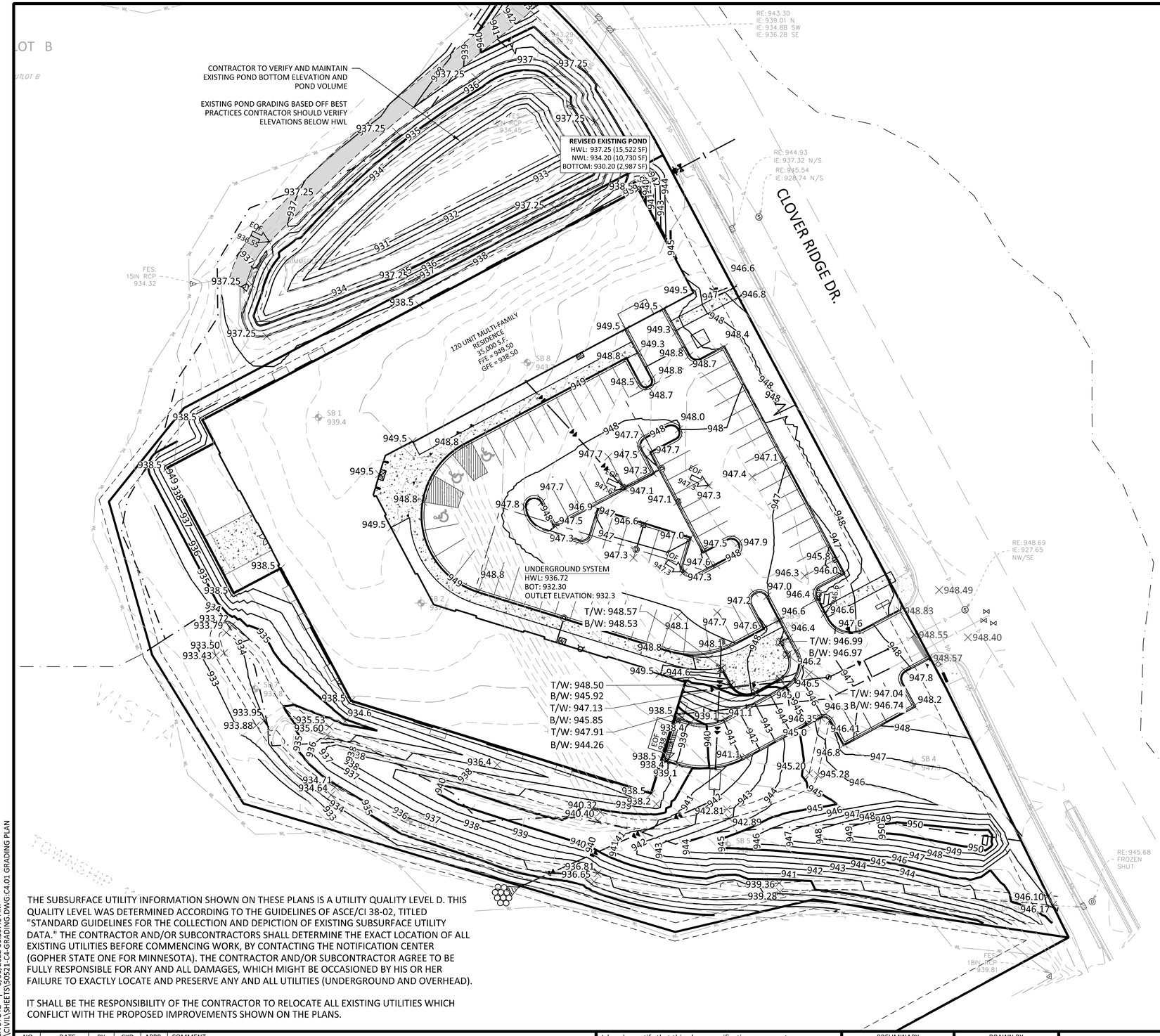
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LEGEND

PROPOSED	EXISTING	
		PROPERTY LINE
		CONCRETE CURB
D	D	STORM SEWER
		DRAINTILE
		BUILDING LINE
		RETAINING WALL
	WL	WETLAND LIMITS
	800	TREE LINE / SPOT ELEVATIONS
		RIPRAP
EOF 902.5		OVERFLOW ELEV.
	ST # 999.9	SOIL BORING

- STANDARD DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- PAVEMENT BY OTHERS (SEE ARCHITECTURAL PLANS)

GRADING NOTES

1. GRADING NOTES PLACE HOLDER

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GRADING PLAN

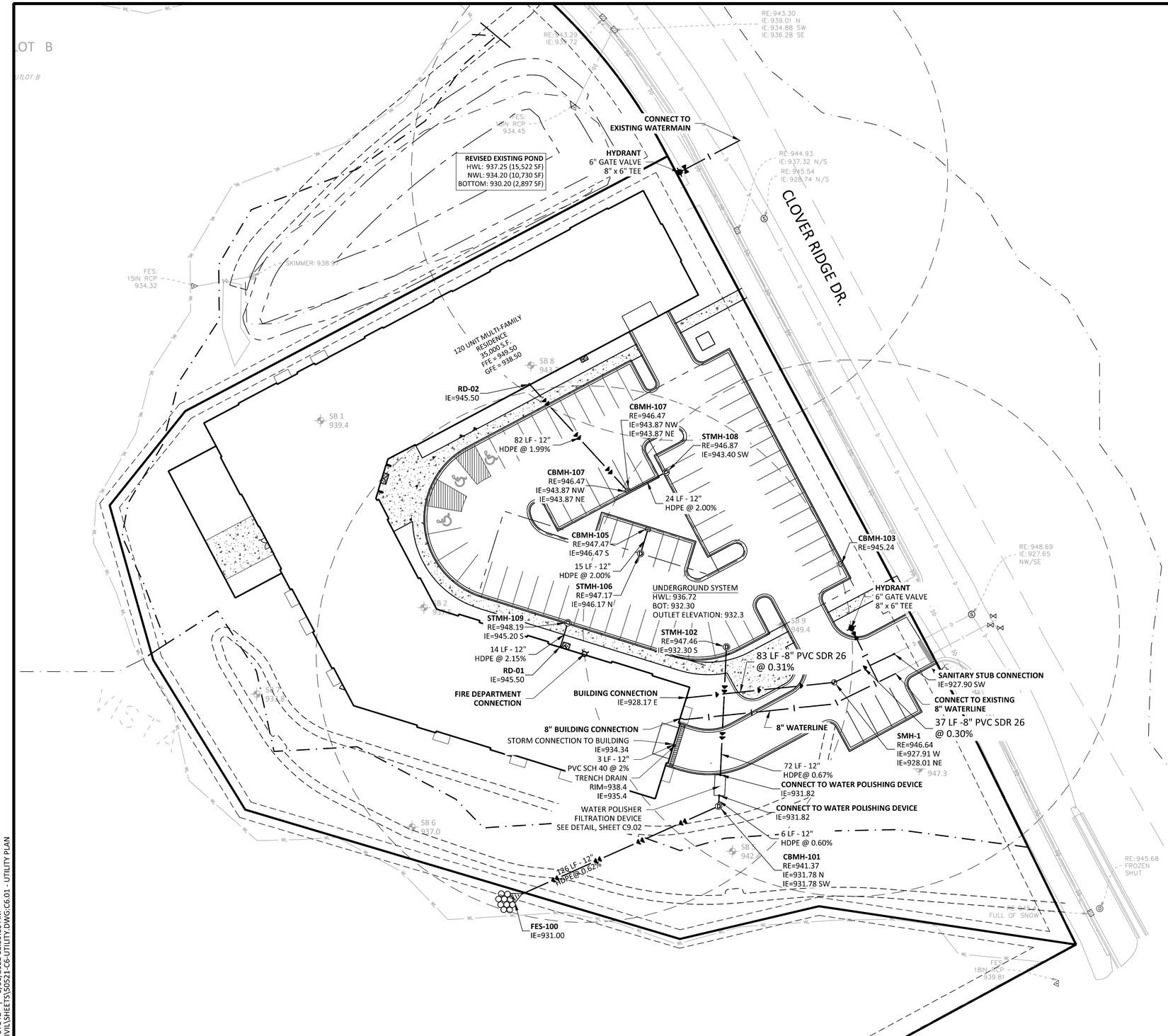
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LEGEND

- SANITARY SEWER
- FORCEMAIN (SAN.)
- STORM SEWER
- DRAINTILE
- WATERMAIN
- UNDERGROUND GAS LINE
- UNDERGROUND TELEPHONE
- ELECTRIC
- CONCRETE CURB
- EASEMENT LINE

UTILITY CONSTRUCTION NOTES

1. UTILITY CONSTRUCTION NOTES HOLDER

STORM SEWER STRUCTURE SCHEDULE

NUMBER	TYPE	CASTING*
*INDICATES NEENAH FOUNDRY CASTING NO., OR APPROVED EQUAL		
NOTE: CONTRACTOR AND THEIR SUPPLIER SHALL DETERMINE THE MINIMUM DIAMETER REQUIRED FOR EACH STORM SEWER STRUCTURE.		

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IF THE CONTRACTOR ENCOUNTERS ANY DRAIN TILE WITHIN THE SITE, HE OR SHE SHALL NOTIFY THE ENGINEER WITH THE LOCATION, SIZE, INVERT AND IF THE TILE LINE IS ACTIVE. NO DRAIN TILE SHALL BE BACKFILLED WITHOUT APPROVAL FROM THE PROJECT ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NORTH

SCALE 0 30 60 IN FEET

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UTILITY PLAN

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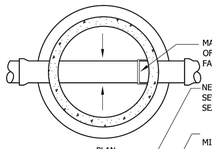
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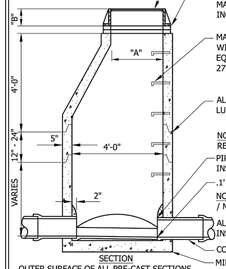
PRECAST INVERT WITH A MINIMUM 1% THROUGH SLOPE REQUIRED.

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

FRAME	A	B
R1642-2310B	27"	7"
R1755G	27"	7"



PLAN



SECTION

- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
- NEENAH COVER **R-1642-5001**, LETTERED "SANITARY SEWER" WITH 2 CONCEALED PICK HOLES AND SELF SEALING LID. SEE SPECIFICATION FOR CASTING NUMBER.
- MINIMUM OF 2 MAXIMUM OF 4 ADJUSTMENT RINGS. FINAL RING MATERIAL AND ADHESIVE TO BE SPECIFIED BY OWNER ON A PROJECT BASIS.
- MAXIMUM 20"ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.
- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL)
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS AND RAMNECK.
- NOTE: ALL INFILTRATION AREAS SHALL BE REPAIRED UNTIL MANHOLE IS WATER TIGHT.
- PIPE SHALL BE CUT 2" FROM INSIDE FACE OF WALL.
- .1' DROP ACROSS INVERTS MIN.
- NOTE: KOR-N-SEAL MANHOLE TO BE USED FOR PIPE / MANHOLE CONNECTION.
- ALL DOG HOUSES SHALL BE GROUTED ON INSIDE OF MANHOLE.
- COMPACT TO TOP OF PIPE, TO FIRST JOINT.
- MINIMUM THICKNESS OF PRECAST BASE IS 6" FOR 14' DEEP OR LESS, AND INCREASES 1" IN THICKNESS FOR EVERY 4' OF DEPTH GREATER THAN 14'.

OUTER SURFACE OF ALL PRE-CAST SECTIONS SHALL RECEIVE 2 COATS OF BITUMINOUS DAMP PROOFING (SEE ENGINEERING GUIDELINES OR PROJECT SPECIFICATIONS FOR MORE DETAILS) .

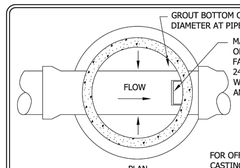
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SANITARY SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. SAN-1

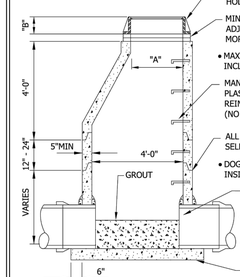


PLAN

- GROUT BOTTOM OF MANHOLE TO A MINIMUM OF 1/2 DIAMETER AT PIPE AND SLOPE GROUT 2" TOWARD INVERT.
- MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM FOR ALL LINES UP TO 24". PLACE STEPS ON RIGHT HAND SIDE WHEN FACING DOWN STREAM FOR ALL 24 " AND OVER.

FRAME	A	B
R1642-2310B	27"	7"

FOR OFF-ROAD SITUATIONS, USE R1916F CASTING MARKED "STORM SEWER". COVERS MUST BE SECURED TO PREVENT REMOVAL.



SECTION

- NEENAH COVER **R1642-5040** LETTERED, "STORM SEWER", WITH 2 CONCEALED PICK HOLES.
- MINIMUM OF 2 MAXIMUM OF 4 CONCRETE ADJUSTMENT RINGS WITH FULL BED OF MORTAR BETWEEN EACH RING.
- MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.
- MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH 1/2" GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)
- ALL JOINTS IN MANHOLE TO HAVE SELF LUBRICATING RUBBER GASKETS.
- DOG HOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE OF STRUCTURE.
- PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.
- NOTE: KOR-N-SEAL MANHOLE OR EQUAL CONSIDERED ACCEPTABLE ALTERNATE.
- NOTE: A MINIMUM SLOPE OF 1% IS REQUIRED ACROSS THE INVERT.
- MINIMUM SLAB THICKNESS, 6" TO 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATHER THAN 14', AND REINFORCE WITH PER MNDOT STD 4011

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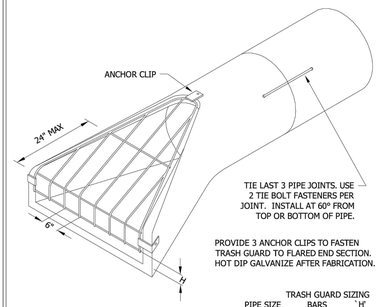
STORM SEWER MANHOLE

CHASKA, MINNESOTA

LAST REVISION: MARCH 2018

PLATE NO. STO-1

SEE CITY PLATE NO. STO-10 FOR RIPRAP PLACEMENT.



ISOMETRIC

PROVIDE 3 ANCHOR CLIPS TO FASTEN TRASH GUARD TO FLARED END SECTION. HOT DIP GALVANIZE AFTER FABRICATION.

TRASH GUARD SIZING

PIPE SIZE	BARS	'H'	BOLTS
12"	3/4"Ø	2 1/2"	5/8"
15"	3/4"Ø	3"	5/8"
18"	3/4"Ø	4"	5/8"
21"-24"	1"Ø	4"	3/4"
27"-36"	1"Ø	5"	3/4"
42"	1"Ø	6"	3/4"
48"-54"	1 1/4"Ø	6"	1"
60"-72"	1 1/4"Ø	7"	1"
78"-90"	1 1/4"Ø	8"	1"

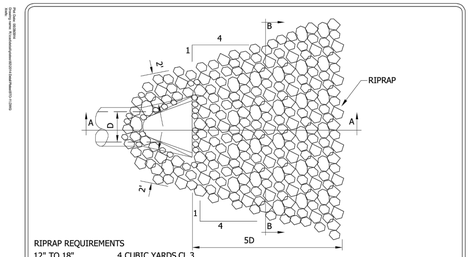
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FLARED END SECTION AND TRASH GUARD

CHASKA, MINNESOTA

LAST REVISION: FEB. 1995

PLATE NO. STO-10

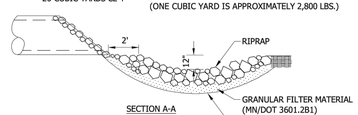


PLAN

RIPRAP REQUIREMENTS

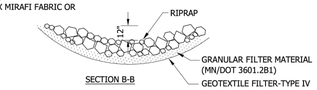
12" TO 18"	4 CUBIC YARDS CL.3
21" TO 27"	8 CUBIC YARDS CL.3
30" TO 36"	12 CUBIC YARDS CL.3
42" TO 48"	16 CUBIC YARDS CL.3
54" AND UP	20 CUBIC YARDS CL 4

(ONE CUBIC YARD IS APPROXIMATELY 2,800 LBS.)



SECTION A-A

NOTE
FILTER BLANKET REQUIRED UNDER RIPRAP OR 2 LAYERS OF 500X MIRAFI FABRIC OR EQUAL



SECTION B-B

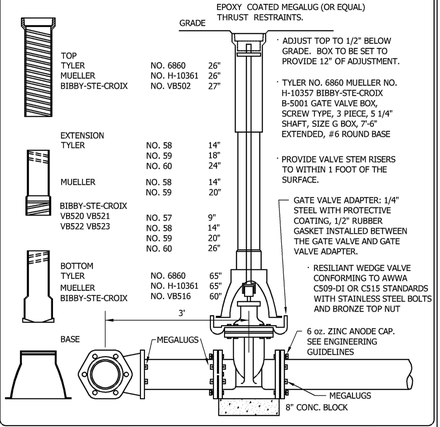
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RIPRAP AT OUTLETS

CHASKA, MINNESOTA

LAST REVISION: APRIL 2004

PLATE NO. STO-11



NOTES: CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.

- PROVIDE POLYWRAP AROUND ALL WATERMAIN
- 7.5' MINIMUM COVER REQUIRED OVER TOP OF WATER MAIN.
- RESTRAIN TEE AND VALVE WITH EPOXY COATED MEGALUG (OR EQUAL) THRUST RESTRAINTS.
- ADJUST TOP TO 1/2" BELOW GRADE. BOX TO BE SET TO PROVIDE 12" OF ADJUSTMENT.
- TYLER NO. 6860 MUELLER NO. H-10357 BIBBY-STE-CROIX B-5001 GATE VALVE BOX, SCREW TYPE, 3 PIECE, 5 1/4" SHAFT, SIZE G BOX, 7'-6" EXTENDED, #6 ROUND BASE
- PROVIDE VALVE STEM RISERS TO WITHIN 1 FOOT OF THE SURFACE.
- GATE VALVE ADAPTER: 1/4" STEEL WITH PROTECTIVE COATING, 1/2" RUBBER GASKET INSTALLED BETWEEN THE GATE VALVE AND GATE VALVE ADAPTER.
- RESILIANT WEDGE VALVE CONFORMING TO AWWA C509-DI OR C515 STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT
- 6 oz. ZINC ANODE CAP. SEE ENGINEERING GUIDELINES

MEGALUGS

8" CONC. BLOCK

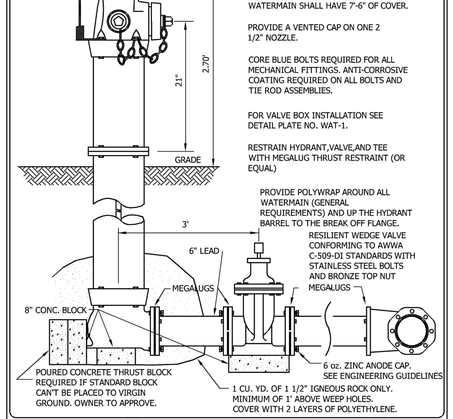
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GATE VALVE AND BOX INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-1



- ALL HYDRANT LEAD AND PIPE JOINTS SHALL BE RESTRAINED WITH TIE RODS AND EPOXY COATED MEGALUGS.
- HYDRANT SHALL BE WATEROUS PACER WB-67-250 WITH 16" TRAFFIC BREAK OFF SECTION, AND EPOXY COATED BOOT.
- HYDRANT SHALL BE FOR 8.0' BURY. WATERMAIN SHALL HAVE 7'-6" OF COVER.
- PROVIDE A VENTED CAP ON ONE 2 1/2" NOZZLE.
- CORE BLUE BOLTS REQUIRED FOR ALL MECHANICAL FITTINGS. ANTI-CORROSIVE COATING REQUIRED ON ALL BOLTS AND TIE ROD ASSEMBLIES.
- FOR VALVE BOX INSTALLATION SEE DETAIL PLATE NO. WAT-1.
- RESTRAIN HYDRANT,VALVE,AND TEE WITH MEGALUG THRUST RESTRAINT (OR EQUAL)
- PROVIDE POLYWRAP AROUND ALL WATERMAIN (GENERAL REQUIREMENTS) AND UP THE HYDRANT BARREL TO THE BREAK OFF FLANGE.
- RESILIENT WEDGE VALVE CONFORMING TO AWWA C-509-DI STANDARDS WITH STAINLESS STEEL BOLTS AND BRONZE TOP NUT

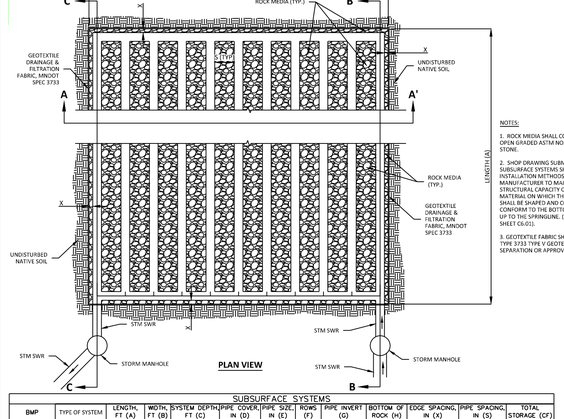
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WATEROUS PACER HYDRANT AND VALVE INSTALLATION

CHASKA, MINNESOTA

LAST REVISION: MARCH 2019

PLATE NO. WAT-2

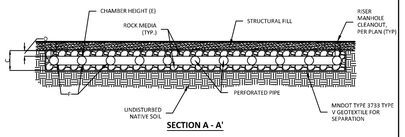


NOTES:

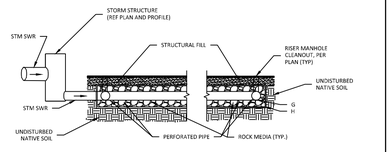
1. ROCK MEDIA SHALL CONSIST OF AN OPEN GRADED ASTM NO. 2 CRUSHED STONE.
2. SHOP DRAWING SUBMITTALS FOR SUBSURFACE SYSTEMS SHALL INCLUDE INSTALLATION METHODS PER PIPE MANUFACTURER TO MAINTAIN STRUCTURAL CAPACITY OF PIPES. THE SAND BEDDING UNDER AND EMBEDDED SHALL BE COMPACTED AND COMPACTED TO CONFORM TO THE BOTTOM OF THE PIPE, UP TO THE SPRINGLINE. (SEE NOTE #12 ON SHEET C6.01).
3. GEOTEXTILE FABRIC SHALL BE MNDOT TYPE 3733 TYPE V GEOTEXTILE FOR SEPARATION OR APPROVED EQUIVALENT.

SUBSURFACE SYSTEMS

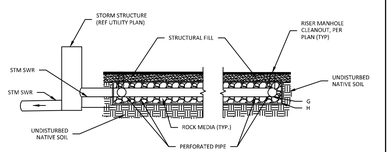
BMP	TYPE OF SYSTEM	LENGTH, FT (A)	WIDTH, SYSTEM FT (B)	DEPTH, FT (C)	PIPE COVER, IN (D)	PIPE SIZE, IN (E)	ROWS (F)	PIPE INVERT (G)	BOTTOM OF ROCK (H)	EDGE SPACING, IN (X)	PIPE SPACING, IN (S)	TOTAL STORAGE (CF)
1P	PERF. CMP PIPE	183.00	90.00	5.00	6.0	48	15	932.80	932.30	12.0	24.0	34117.0



SECTION A - A'



SECTION B - B'



SECTION C - C'

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Brian W. Frank

Date _____ License # _____

PRELIMINARY

DESIGN REVIEW

PERMIT SUBMITTAL

CONSTRUCTION DOCUMENTS

DRAWN BY KLS

DESIGNED BY

CHECKED BY

PROJECT NO. 50521

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DETAILS

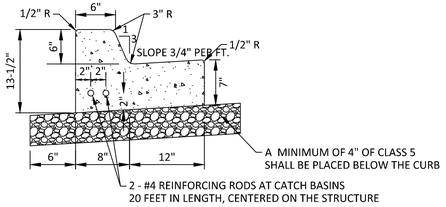
AV DEVELOPMENT, LLC
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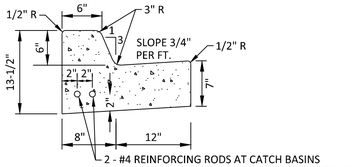
CHASKA, MINNESOTA

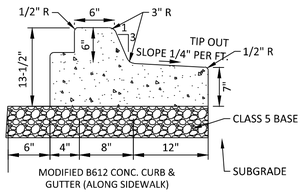
SHEET C9.01 9 OF 10 REV.

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J:\PROJECTS\50521\CAD\CIVIL\SHEETS\50521-C9-DETAILS.DWG:C9.01

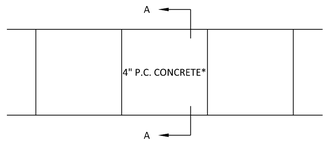
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01 B612 CONCRETE CURB & GUTTER
N.T.S.

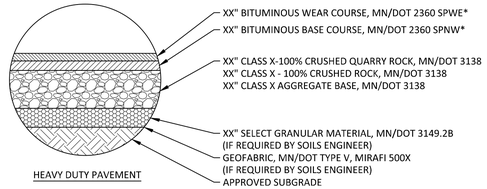


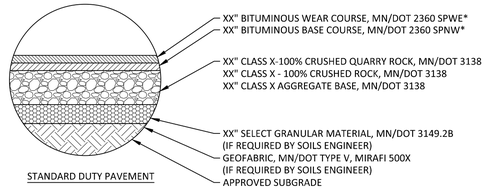
GENERAL NOTES FOR CONCRETE CONSTRUCTION:

1. THE CONCRETE SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF MN/DOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
2. SIDEWALK CONTROL JOINTS SHALL BE LOCATED AT 5 FEET ON CENTER. SIDEWALK EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM OF 100 FEET ON CENTER, AND WHERE SIDEWALK ABUTS CURB, STRUCTURES, AND OTHER FIXED OBJECTS. SEAL ALL EXPANSION JOINTS. BROOM FINISH SHALL BE PERPENDICULAR TO THE LINE OF TRAFFIC.

*THE THICKNESS SHALL BE INCREASED TO A MINIMUM DEPTH OF __ INCHES AT DRIVEWAY CROSSINGS.

02 CONCRETE SIDEWALK
N.T.S.

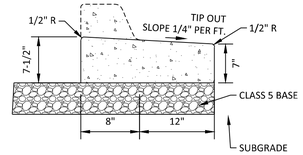




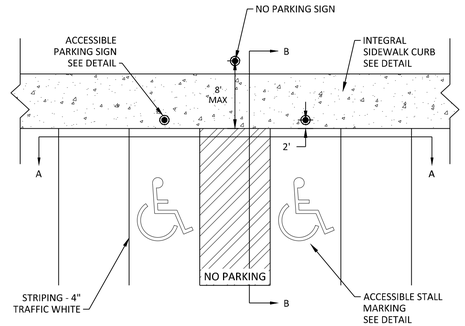
* REFER TO BITUMINOUS MIX DESIGN REQUIREMENT PROVIDED BY THE GEOTECHNICAL CONSULTANT

NOTES:
1. THE PAVEMENT SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MNDOT "STANDARD SPECIFICATION FOR CONSTRUCTION", AND ALSO THE REQUIREMENTS OF THE OWNER'S GEOTECHNICAL CONSULTANT.
2. ALL THICKNESSES, AS SPECIFIED, ARE TO BE CONSIDERED MINIMUM DEPTHS, AFTER COMPACTION.
3. MN/DOT SPEC. 2357 BITUMINOUS TACK COAT SHALL BE PLACED BETWEEN SUCCESSIVE BITUMINOUS LIFTS AND AGAINST ABUTTING CONCRETE CURB EDGES.

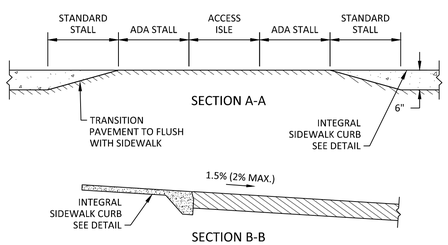
03 PAVEMENT SECTIONS
N.T.S.



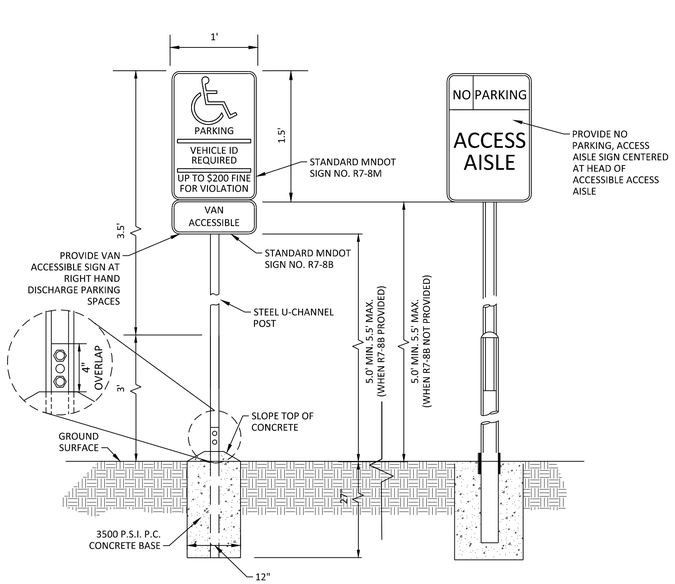
06 B612 FLAT CURB & GUTTER
N.T.S.



PLAN VIEW OF ADA PARKING



04 ADA PARKING
N.T.S.



05 BREAKAWAY ACCESSIBLE PARKING SIGN
N.T.S.

SITE SPECIFIC DATA*

PROJECT NUMBER	
PROJECT NAME	
PROJECT LOCATION	
STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS)	
PEAK FLOW RATE (CFS)	
PEAK STORM DURATION (YEARS)	

PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
OUTLET PIPE 1			
RIM ELEVATION			

SURFACE LOADING REQUIREMENT	
FRAME AND COVER	ø30"
CORROSIVE SOIL CONDITIONS	
KNOWN GROUNDWATER ELEVATION	

NOTES:

*PER ENGINEER OF RECORD

WP PERFORMANCE DATA

TREATMENT FLOW RATE (CFS)	0.60
MEDIA SURFACE AREA (SF)	25
LOADING RATE (GPM/SF)	--
SEDIMENT STORAGE CAPACITY (CF)	90.50

WP STORAGE CAPACITIES

SEDIMENT CHAMBER CAPACITY

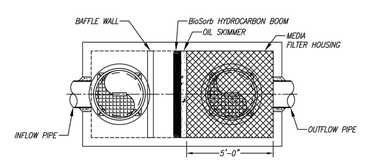
	LENGTH (FT)	WIDTH (FT)	HEIGHT (FT)	TOTAL (CF)
CHAMBER 1	3.25	5.00	3.44	55.90
CHAMBER 2	6.92	5.00	1.00	34.60

GENERAL NOTES

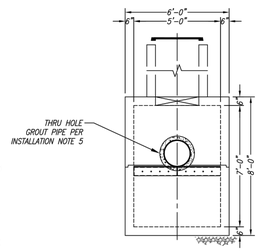
1. BIO CLEAN TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

INSTALLATION NOTES

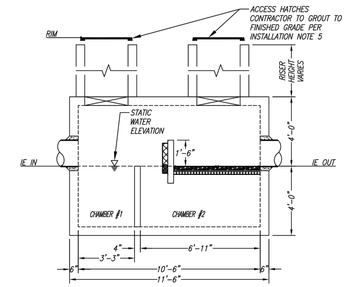
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE NSBB UNIT AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. MANUFACTURER RECOMMENDS A 6"-12" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH).
4. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. ALL COVERS SHALL BE SHIPPED LOOSE. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.



PLAN VIEW
NTS



END VIEW
NTS



ELEVATION VIEW
NTS

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BIO CLEAN ENVIRONMENTAL SERVICES, INC.
biocleanenvironmental.com
P 760.433.7640 F 760.433.3176

WP-5-10.5
WATER POLISHER-UP FLOW MEDIA FILTER
STANDARD DETAIL

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Brian W. Frank

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY KLS
DESIGNED BY
CHECKED BY
PROJECT NO. 50521

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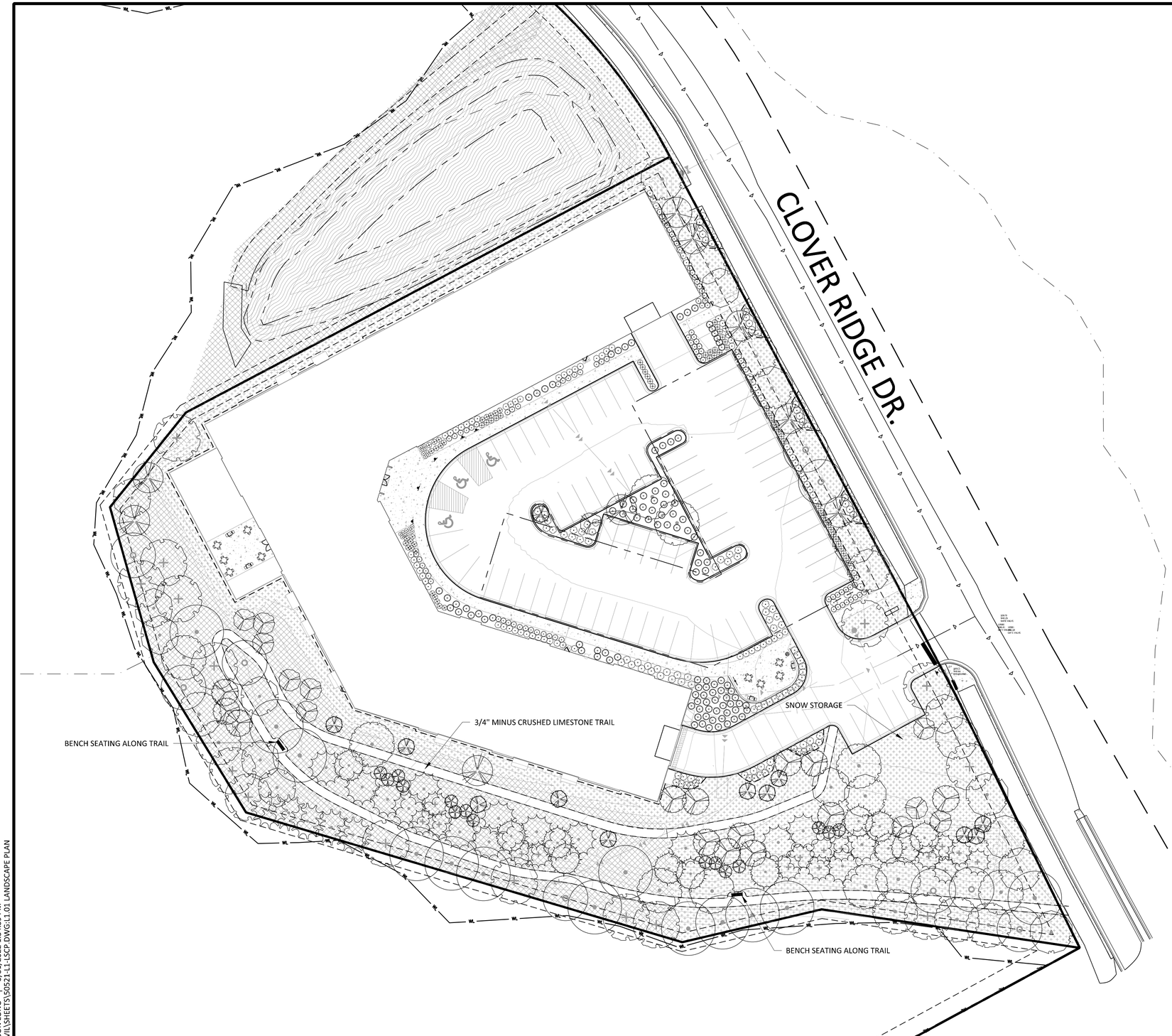
DETAILS

AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

SHEET
C9.02
10 OF 10
REV.

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LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
EASEMENT		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		WL
TREELINE		
LANDSCAPE EDING		
STORM SEWER	D	
SANITARY SEWER	S	
FORCEMAIN (SAN.)	LS FM	
WATERMAIN		
YARDDRAIN		
LIMITS OF DISTURBANCE		

STANDARD DUTY ASPHALT PAVING
CONCRETE PAVING
CONCRETE SIDEWALK
TREE PROTECTION FENCE — TP
TREE TO BE REMOVED
SIGN
PIPE BOLLARD
RIPRAP

CHASKA LANDSCAPE CODE

1. Total Caliper Inches of Overstory Trees Required. In order to achieve landscaping which is appropriate in scale with the size of a building site, the minimum number of caliper inches of overstory trees required shall be determined by dividing the total gross square footage of all floors of a building by 320.
2. Understory Trees and Shrubs. In addition to the required number of overstory trees listed above, a full complement of understory trees and shrubs shall be provided to complete a quality landscape treatment of the site. A minimum number of understory trees and shrubs are required as follows:
   - 2.1. The number of understory trees shall be equal to twenty-five (25) percent of the required number of overstory trees; and
   - 2.2. The number of shrubs shall be equal to one (1) shrub per thirty (30) feet of site perimeter or one (1) shrub per three-hundred (300) square feet of building footprint, whichever is greater.
3. For the purpose of satisfying the total caliper inch requirement, coniferous trees can be considered equivalent to overstory trees by dividing the height of a coniferous tree's six (6) foot height minimum by 2.4 to determine equivalent caliper inches.

TOTAL NUMBER OF STORIES ON BUILDING: 4

TOTAL CALIPER INCHES REQUIRED: 442"

CALCULATIONS	INCHES REQUIRED	INCHES PROPOSED	TREES PROPOSED
2.5" CAL. OVERSTORY TREES REQUIRED(40%)	176.8	177.5	71
3" CAL. OVERSTORY TREES REQUIRED(20%)	88.4	90	30
3.5" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	45.5	13
4" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	44	11
4.5" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	45	10
5" CAL. OVERSTORY TREES REQUIRED(10%)	44.2	45	9
UNDERSTORY TREES REQUIRED		36	36
SHRUBS REQUIRED		471	471

	REQUIRED	PROPOSED
LANDSCAPE ISLAND CALCULATION (5,475SF / 37,223SF)	10%	14%

OPEN SPACE CALCULATION
BALCONIES (2,560 SF)
OPEN SPACE A,B,AND C (43,252 SF)

TOTAL (CALCULATION: 45,812 SF/ 163,501 SF)	15% (24,525 SF)	28% (45,812 SF)

PLANT SCHEDULE

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	AB	Acer freemanii 'Autumn Blaze' / Autumn Blaze Maple	B & B	5" Cal		9
	SG	Acer freemanii 'Sienna Glen' / Sienna Glen Maple	B & B	3.5" Cal.		13
	BWS	Betula papyrifera 'Whitespire' / Whitespire Birch	B & B	2.5"Cal		9
	HL	Gleditsia triacanthos 'Skyline' / Skyline Honey Locust	B & B	3"Cal.		35
	KC	Gymnocladus dioica 'Espresso' / Kentucky Coffeetree	B & B	4.5" CAL.		10
	SO	Quercus bicolor / Swamp White Oak	B & B	3"Cal.		15
	BL	Tilia americana 'Boulevard' / Boulevard Linden	B & B	4"CAL		31
CONIFERS	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	BF	Abies balsamea / Balsam Fir	B & B		6'	15
	LR	Larix laricina / Tamarack	B & B		6'	5
	NS	Picea abies / Norway Spruce	B & B		6'	12
	BS	Picea glauca densata / Black Hills Spruce	B & B		6'	15
	PW	Pinus strobus 'Fastigiata' / Pyramidal White Pine	B & B		6'	15
ORN. TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	SB	Amelanchier canadensis 'Autumn Brilliance' / Autumn Brilliance Serviceberry	B & B	2"Cal		11
	RE	Cercis canadensis / Eastern Redbud	B & B	2"Cal		12
	IL	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	B & B	2"Cal		13
SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT			
	BH	Diervilla lonicera / Dwarf Bush Honeysuckle	5 gal			69
	LH	Hydrangea paniculata 'Jane' / Little Lime Hydrangea	5 gal			90
	CJ	Juniperus sabina 'Monna' / Calgary Carpet Juniper	5 gal			100
	PM	Pinus mugo 'Slowmound' / Mugo Pine	5 gal			28
	PT	Potentilla fruticosa 'Fargo' TM / Fargo Potentilla	5 gal			88
	GL	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	5 gal			52
	GS	Spiraea japonica 'Goldflame' / Spirea	5 gal			37
	HA	Thuja occidentalis 'Holmstrup' / Holmstrup Cedar	10 gal			6
PERENNIALS	CODE	BOTANICAL / COMMON NAME	CONT			
	SBA	Allium x 'Summer Beauty' / Summer Beauty Allium	1 gal			37
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT			
	33-261	MNDOT Seed Mix 33-261 / Ponds and Wet Areas	Seed			
	34-262	MNDOT Seed mix 34-262 / Wet Prairie	Seed			
	TURF MIX	Turf Sod Highland Sod / Sod	Sod			

NORTH
0 30 60
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Print Name: Johnnie R. Workman

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY
DESIGNED BY
CHECKED BY
PROJECT NO. 50521

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LANDSCAPE PLAN

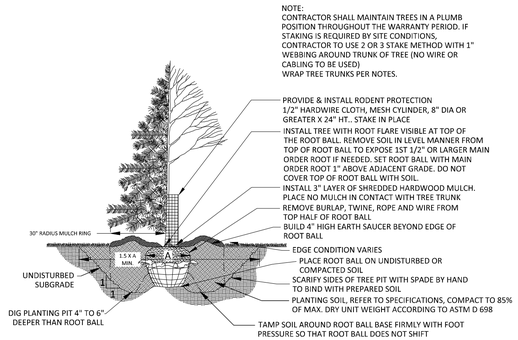
AV DEVELOPMENT, LLC
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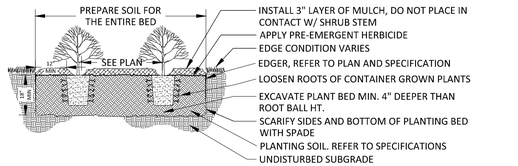
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C:\PROJECTS\50521\CAD\CIVIL\SHEETS\50521-L1-LSCP.DWG:L1.01 LANDSCAPE PLAN | 3/31/2022 1:34:39 PM | MADISON LONG (LMS TECH)



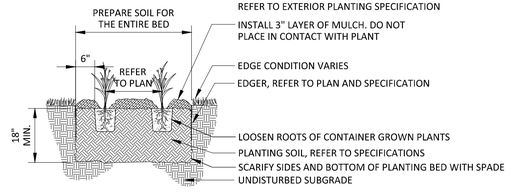
1 C3.01 TREE PLANTING DETAIL

1/4" = 1'-0" P-01



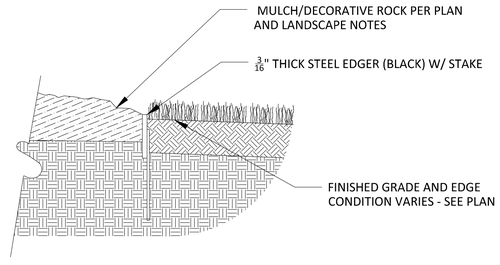
2 C3.01 SHRUB PLANTING DETAIL

3/8" = 1'-0" P-02



3 C3.01 PERENNIAL PLANTING DETAIL

1/2" = 1'-0" P-03



4 C3.01 STEEL EDGER

1 1/2" = 1'-0" P-06

NOTES

GENERAL NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK.
2. THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO SAME SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
5. LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
6. **THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.**
7. THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
8. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
9. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
10. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING.
11. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
12. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.

PLANTING NOTES:

1. NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
2. A GRANULAR PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANT BEDS AT THE MANUFACTURERS RECOMMENDED RATE PRIOR TO PLANT INSTALLATION.
3. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
4. OVERSTORY TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACES.
5. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
6. PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
7. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
8. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
10. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
11. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
12. MULCH: DOUBLE SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 3" FOR SHRUB BEDS, TREE RINGS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
13. BUILDING MAINTENANCE STRIP: WHERE NO LANDSCAPE PLANTING BEDS EXIST ADJACENT TO A BUILDING FOUNDATION, CONTRACTOR SHALL INSTALL A DECORATIVE ROCK MAINTENANCE STRIP PER PLAN. DECORATIVE ROCK SHALL BE 1"-3" DRESSER TRAP ROCK, GREY IN COLOR.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN.
15. USE ANTI-DESICCANT (WILTPRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND FOR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
16. WRAP ALL SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1. TREE WRAPPING MATERIAL SHALL BE WHITE TWO-WALLED PLASTIC SHEETING APPLIED FROM TRUNK FLARE TO THE FIRST BRANCH.
17. ALL DECIDUOUS, PINE, AND LARCH PLANTINGS SHALL RECEIVE RODENT PROTECTION PER MNDOT 2571.31.2
18. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT (4% MIN.) OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MNDOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL. MIXTURE SHALL BE FREE FROM HARDPACK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED IN A 6" LAYER AND ROTO-TILLING IT INTO THE TOP 12" OF SOIL AT A 1:1 RATIO.ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
19. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT EACH EXCAVATED TREE AND SHRUB PIT WILL PERCOLATE PRIOR TO INSTALLING PLANTING MEDIUM AND PLANTS. THE CONTRACTOR SHALL FILL THE BOTTOM OF SELECTED HOLES WITH SIX INCHES OF WATER AND CONFIRM THAT THIS WATER WILL PERCOLATE WITHIN A 24-HOUR PERIOD. IF THE SOIL AT A GIVEN AREA DOES NOT DRAIN PROPERLY, A PVC DRAIN OR GRAVEL SUMP SHALL BE INSTALLED OR THE PLANTING SHALL BE RELOCATED IF DIRECTED BY THE LANDSCAPE ARCHITECT.
20. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
21. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
22. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK.

22.1.	POTTED PLANTS:	4/1 - 6/1; 9/21 - 11/1
22.2.	DECIDUOUS /B&B:	4/1 - 6/1; 9/21 - 11/1
22.3.	EVERGREEN POTTED PLANTS:	4/1 - 6/1; 9/21-11/1
22.4.	EVERGREEN B&B:	4/1 - 5/1; 9/21 - 11/1
22.5.	TURF/LAWN SEEDING:	4/1 - 6/1; 7/20 - 9/20
22.6.	NATIVE MIX SEEDING:	4/15 - 7/20; 9/20-10/20

23. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
24. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
25. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK. IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.

TURF NOTES:

TURF ESTABLISHMENT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROVISIONS OF THE MN/DOT 2105 AND 2575 EXCEPT AS MODIFIED BELOW:

1. ALL AREAS TO RECEIVE SOD SHALL ALSO RECEIVE 6" OF TOPSOIL PRIOR TO INSTALLING SOD. TOPSOIL SHALL BE FREE OF TREE ROOTS, STUMPS, BUILDING MATERIAL, AND TRASH, AND SHALL BE FREE OF STONES LARGER THAN 1 ½" INCHES IN ANY DIMENSION.
2. WHERE SOD ABUTS PAVED SURFACES, FINISHED GRADE OF SOD/SEED SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
3. SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND SHALL HAVE STAGGERED JOINTS. ON SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES, SOD SHALL BE STAKED SECURELY.
4. TURF ON ALL OTHER AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY SEEDING, MULCHING AND FERTILIZING. SEED MIXTURE NO.25-121 WILL BE PLACED AT THE RATE OF 65 POUNDS PER ACRE.
5. ALL DISTURBED AREAS TO BE TURF SEEDED, ARE TO RECEIVE 6" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.
6. ALL DISTURBED AREAS TO RECEIVE NATIVE SEED, ARE TO RECEIVE PLANTING SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.

GENERAL TREE SPECIFICATIONS:

1. ALL STREET AND PARKING LOT TREES SHALL BE LIMBED UP TO THE FOLLOWING HEIGHTS:
   - 1.1. 2" CAL. TREES: LOWEST BRANCH 6' HT.
   - 1.2. 3" CAL + TREES: LOWEST BRANCH 7' HT.
2. TREE CANOPY WIDTH SHALL BE RELATIVE TO HEIGHT/CALIPER OF TREE AND TYPE OF TREE.
   - 2.1. 1" CALIPER/6-8' HT: 3-4' WIDTH MIN.
   - 2.2. 2" CALIPER/12-14' HT: 4-5' WIDTH MIN.
   - 2.3. 3" CALIPER/14-16' HT: 6-7' WIDTH MIN.
3. CANOPY TREES SHALL NOT HAVE CO-DOMINATE LEADERS IN LOWER HALF OF TREE CROWN.
4. ALL TREES SHALL HAVE SYMMETRICAL OR BALANCED BRANCHING ON ALL SIDES OF THE TREE.
5. TREES SHALL NOT BE TIPPED PRUNED.
6. TREES SHALL BE FREE OF PHYSICAL DAMAGE FROM SHIPPING AND HANDLING. DAMAGED TREES SHALL BE REJECTED.
7. SUMMER DUG TREES SHALL HAVE ROOTBALL SIZE INCREASED BY 20%
8. TREES WHICH EXCEED RECOMMENDED CALIPER TO HEIGHT RELATIONSHIP SHALL BE REJECTED.

IRRIGATION NOTES:

1. IRRIGATION SYSTEM TO BE DESIGN/BUILD. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL OF SYSTEM LAYOUT PRIOR TO INSTALLATION.
2. ALL SOD TO RECEIVE SPRAY OR ROTOR IRRIGATION HEADS WITH MINIMUM DESIGN OF 1" IRRIGATION PER WEEK.
3. ALL PLANT BEDS TO RECEIVE DRIP LINE IRRIGATION , WITH A MINIMUM DESIGN OF .25" IRRIGATION PER WEEK.
4. CONTRACTOR TO INSTALL A TOTAL OF 4 QUICK COUPLERS AT THE CORNERS OF THE PROPERTY. A 2.5" TYPE K SOURCE PIPE IS PROVIDED BY MECHANICAL.

LOW MAINTENANCE FESCUE NOTES:

1. DURING GROWING SEASON NEVER MOW SHORTER THAN 3.5 INCHES, PREFERRED MAINTENANCE IS MOW ONCE PER MONTH AT 5" HEIGHT
2. DO NOT USE HIGH NITROGEN FERTILIZER ON FESCUE LAWN
3. OVERSEED THIN,BARE SPOTS IN FALL
4. ALWAYS USE SHARP BLADE WHEN MOWING TO AVOID TEARING LEAF BLADE
5. SET MOWER TO 3" FOR BAGGING AND MOWING IN LATE FALL AFTER GROWING SEASON

NATIVE SEED MIX NOTES:

1. ESTABLISHMENT AND YEAR ONE: MOW THREE(3) TIMES FIRST YEAR ON 30-DAY INTERVALS TO A HEIGHT BETWEEN FIVE AND EIGHT INCHES. DO NOT USE FERTILIZERS. SPOT TREAT INVASIVE WOODY PLANTS OR HAND WEED INDIVIDUAL NOXIOUS WEEDS.
2. YEAR TWO: PERFORM ONE MOWING BETWEEN MID-JUNE AND MID-AUGUST. SPOT SPRAY WEEDS AS NEEDED WHERE THEY ARE ESPECIALLY DOMINATE.
3. YEAR THREE (AND BEYOND): CUT ONE TIME PER YEAR AS A CLEAN UP PROCEDURE (EITHER IN EARLY MAY OR LATE NOVEMBER). PRESCRIBED BURNS MAY BE USED AS WELL IN PLACE OF MOWING. CHECK LOCAL REGULATIONS AND PERMIT PROCEDURES.

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Print Name: Johnnie R. Workman

Date _____ License # _____

PRELIMINARY	DRAWN BY	
DESIGN REVIEW	DESIGNED BY	
PERMIT SUBMITTAL	CHECKED BY	
CONSTRUCTION DOCUMENTS	PROJECT NO.	50521

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LANDSCAPE DETAILS AND NOTES

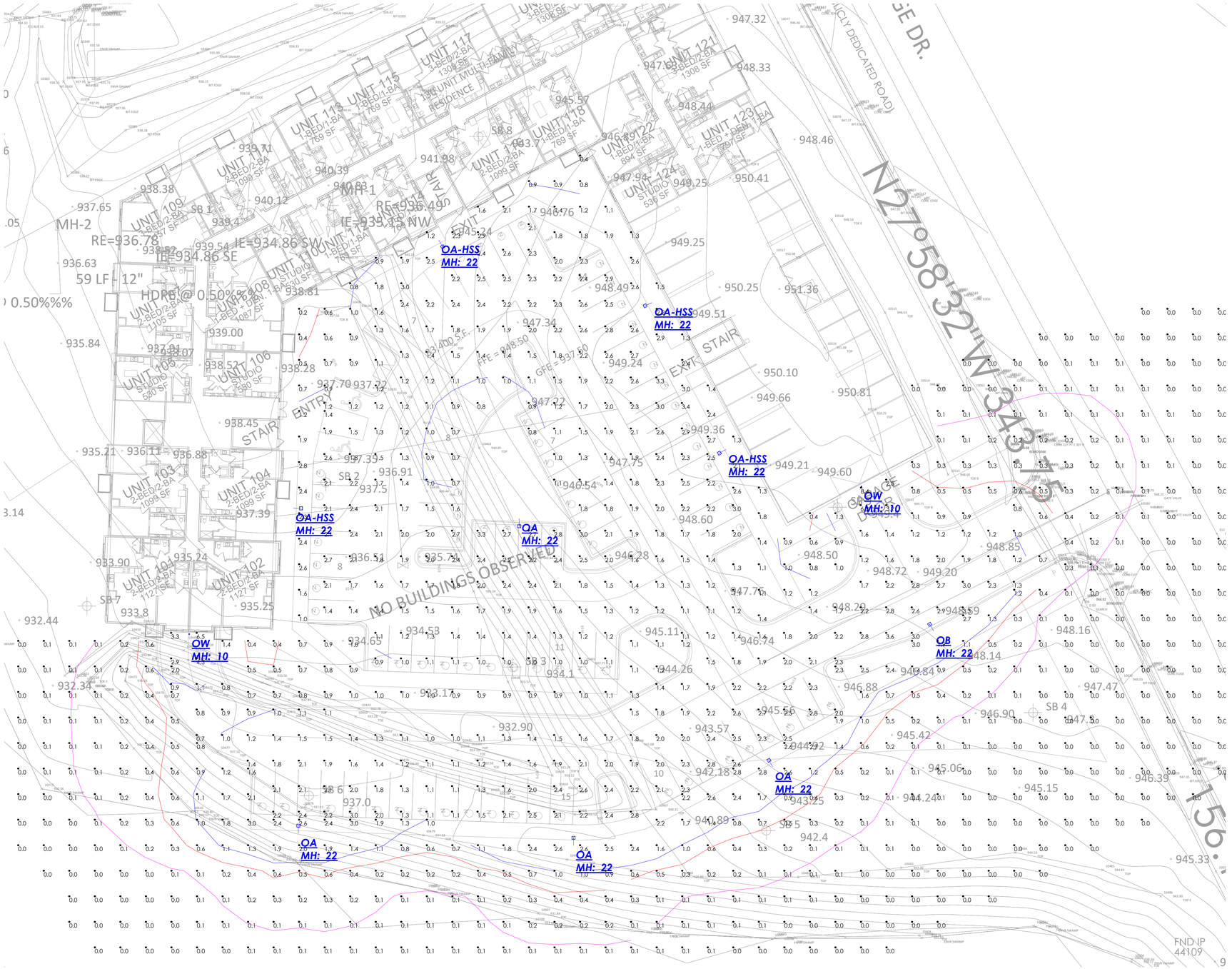
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CHASKA, MINNESOTA

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Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	0.43	8.4	0.0	N.A.	N.A.
PARKING AND DRIVE	Illuminance	Fc	1.84	6.5	0.7	2.63	9.29

Luminaire Schedule							
Symbol	Qty	Label	Manufacturer	Description	Arrangement	Lum. Lumens	Lum. Watts	LLF
	4	OA	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	PRV-C25-D-UNV-T4-BZ	Single	13140	96	0.900
	4	OA-HSS	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	PRV-C25-D-UNV-T4-BZ-HSS	Single	11933	96	0.900
	1	OB	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	PRV-C25-D-UNV-T3-BZ	Single	13183	96	0.900
	2	OW	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	AXCS2A	Single	2561	20.7	0.900

1. Standard Reflectance of 80/50/20 unless noted otherwise
2. Not a Construction Document, for Design purposes only
3. Standard indoor calc points @ 30" A.F.F. unless noted otherwise
4. Standard outdoor calc points @ Grade unless noted otherwise
5. Egress calc points @ 0" A.F.F.
6. Mlazgar Associates assumes no responsibility for installed light levels due to field conditions, etc.

MLAZGAR ASSOCIATES
16350 W. GLENDALE DR.
NEW BERLIN, WI 53151
(p) 414-943-1915
(f) 952-943-8088
www.mlazgar.com

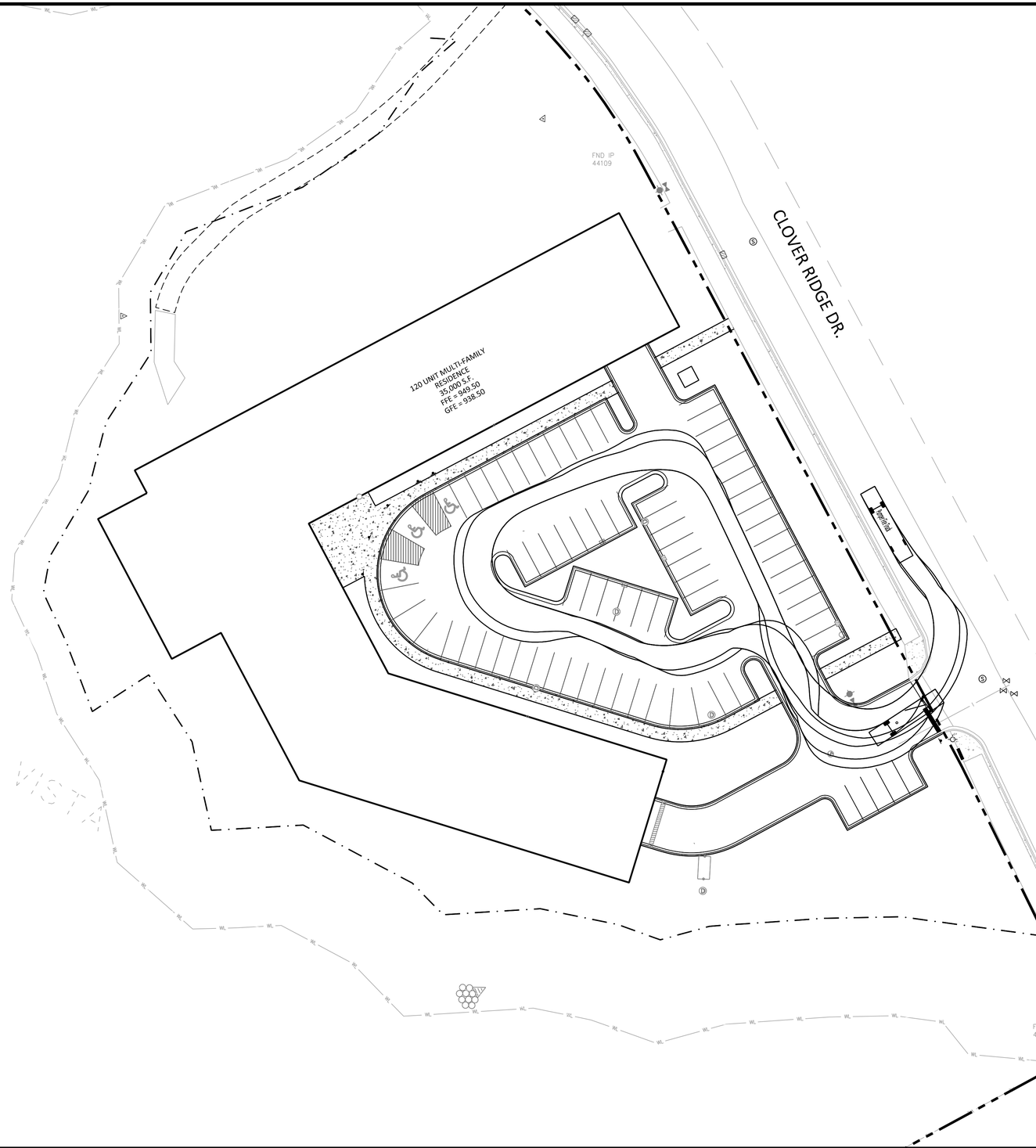
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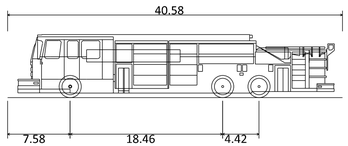
Revisions

RLMA Project #:123005
Drawn By:MB
Date:2/1/2022
Scale:1"=20'-0"

PHOTOMETRIC SITE PLAN

CHASKA SITE
CHASKA, MN





Chaska - Ladder Truck

Overall Length	40.580ft
Overall Width	10.500ft
Overall Body Height	7.647ft
Min Body Ground Clearance	0.558ft
Track Width	7.610ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	36.00°

NORTH

0 30 60
SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Brian W. Frank

Date _____ License # _____

PRELIMINARY
DESIGN REVIEW
PERMIT SUBMITTAL
CONSTRUCTION DOCUMENTS

DRAWN BY KLS
DESIGNED BY
CHECKED BY
PROJECT NO. 50521

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FIRE TRUCK TURNING EXHIBIT

AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

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DEVELOPMENT SUMMARY

AREA	
GROSS SITE AREA	552,066 SF 12.67 AC
SETBACKS	
FRONT YARD	20FEET
REAR YARD	50 FEET
SIDE YARD	20 FEET
MINIMUM LOT SIZE	2,500 SF
ZONING	
EXISTING ZONING	UNZONED
PROPOSED ZONING	R-3: MULTIPLE FAMILY RESIDENCE
BUILDING REQUIREMENTS	0.40 RATIO
MINIMUM FLOOR AREA	45 FT
MAXIMUM BUILDING HEIGHT	
PARKING SUMMARY	(2 STALLS PER UNIT) 238 STALLS
TOTAL PARKING REQUIRED	(1 STALLS PER UNIT) 113 STALLS
COVERED PARKING PROVIDED	183 STALLS
TOTAL PARKING PROVIDED	113 STALLS
COVERED PARKING PROVIDED	70 STALLS
SURFACE LOT PARKING PROVIDED	

OUTLOT B

DRAINAGE & UTILITY EASEMENT OVER ALL OF OUTLOT B

AVERAGE BUFFER LINE

WETLAND CLASSIFICATION: MANAGE 3
16' AVERAGE & PERMANENT WETLAND BUFFER
10' BUILDING SETBACK
26' TOTAL

10' BUILDING SETBACK

SWAMP AREA

SKIMMER: 938.97

AT GRADE

119 UNIT MULTI-FAMILY RESIDENCE
35,000 S.F.
FFE = 948.50
GFE = 937.50

SB 8 939.7

SB 1 939.4

FES: 30IN RCP 936.38

FES: 18IN RCP 934.15

FES: 15IN RCP 934.45

RE: 943.30
IE: 939.01 N
IE: 934.88 SW
IE: 936.28 SE

RE: 943.22
IE: 939.72

FND IP 44109

RE: 945.54
IE: 928.74 N/S

RE: 944
IE: 937.74 N/S

CLOVER RIDGE DR

(PUBLIC - UNDEDICATED ROAD)

2555.2 1/4"

6' Temporary Construction Fencing - Full Perimeter of the Site

Construction/ Gate/Entrance

Sign to be placed facing Northwest

NO CONSTRUCTION TRAFFIC BEYOND THIS POINT

Sign to be placed separately

RE: 948.69
IE: 927.65
NW/SE

RE: 945.68
FROZEN
SHUT

S26°09'27"E

SB 9 949.4

SB 2 937.5

SB 7 933.8

SB 3 934.1

SB 6 937.0

SB 5 942.4

SB X 947.3

20' BUILDING SETBACK

NO BUILDINGS OBSERVED

GARAGE ENTRANCE

AVERAGE BUFFER LINE

RE: 945.41
TOP OF SNOW

50.0'

MINIMUM BUFFER LINE

WETLAND CLASSIFICATION: UNIQUE
50' PERMANENT WETLAND BUFFER
20' BUILDING SETBACK
70' TOTAL

MINIMUM BUFFER LINE

FND IP 44109

FES: 18IN RCP 939.81

CROSSES AND G WEST LINE (1)

WEST LINE OF THE SW QUARTER OF SECTION 30, TWP 116, RNG 24

SW 1/4

SECTION 30

PIONEER

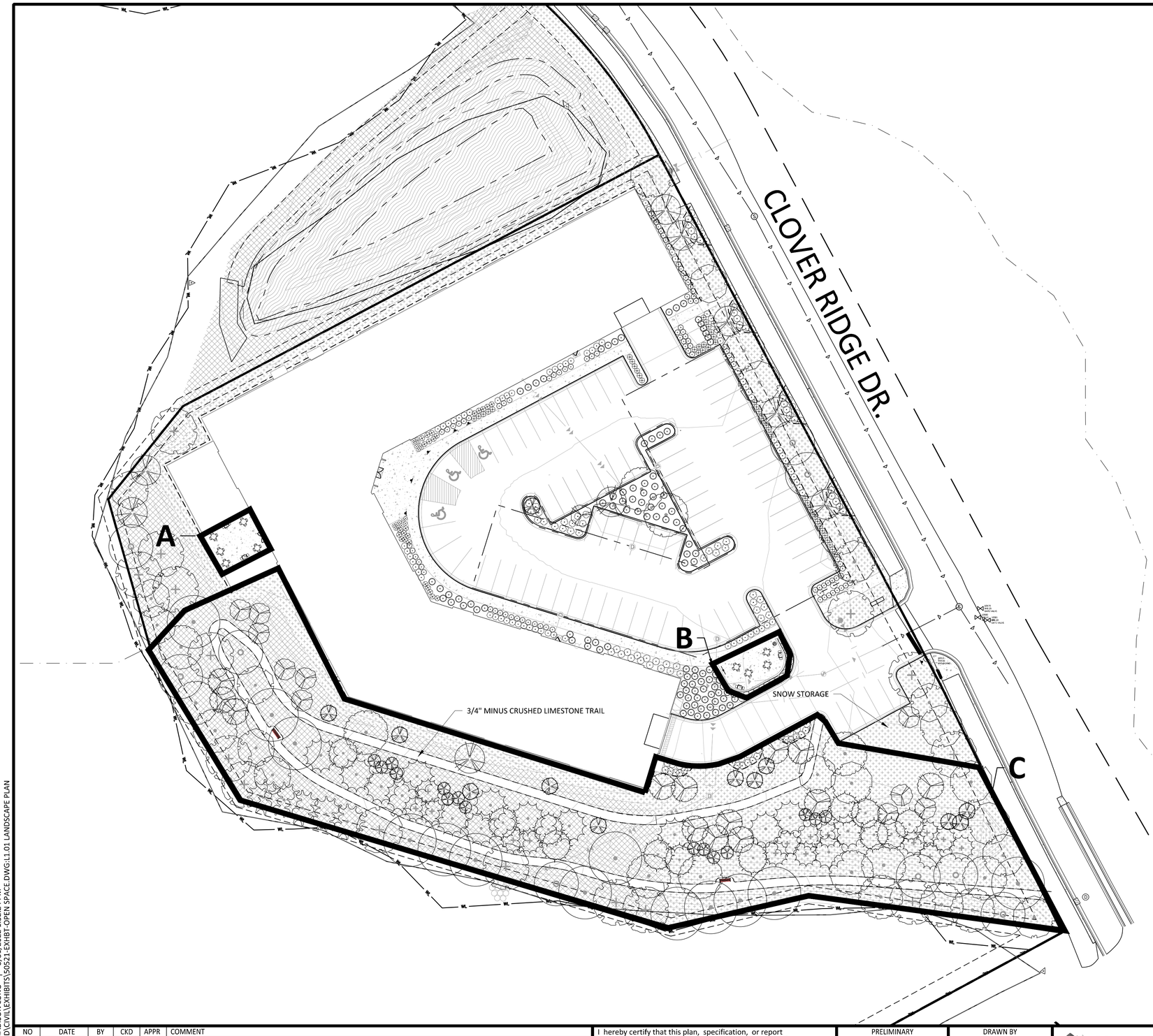
VISTA

TOWNSHIP 116

NORTH

0 30 60

SCALE IN FEET



LEGEND

	PROPOSED	EXISTING
PROPERTY LIMIT		
CURB & GUTTER		
EASEMENT		
BUILDING		
RETAINING WALL		
WETLAND LIMITS		WL
TREELINE		
LANDSCAPE EDING		
STORM SEWER	D	
SANITARY SEWER	S	S
FORCEMAIN (SAN.)	LS	FM S
WATERMAIN		
YARDDRAIN		
LIMITS OF DISTURBANCE		

STANDARD DUTY ASPHALT PAVING	
CONCRETE PAVING	
CONCRETE SIDEWALK	
TREE PROTECTION FENCE	TP
TREE TO BE REMOVED	
SIGN	
PIPE BOLLARD	
RIPRAP	

CHASKA LANDSCAPE CODE

OPEN SPACE A

- 750 SF
- THIS OPEN SPACE WILL CONSIST OF ROOF TOP PATIO SPACE WITH OUTDOOR FURNITURE, FOR OUTDOOR DINNING AND GATHERING.

OPEN SPACE B

- 611 SF
- THIS OPEN SPACE WILL CONSIST OF A GRILL STATION AND PICNIC TABLES.

OPEN SPACE C

- 41,891 SF
- THIS OPEN SPACE WILL CONSIST OF A BERM WITH A HIGH CONCENTRATION OF CONIFERS AND A LARGE FLAT GRASS AREA. THIS AREA WILL ALSO HAVE A WALKING TRAIL AND BENCHES TROUGH THE WOODLANDS AREA. THIS OPEN SPACE WILL BE USED FOR WINTER RECREATIONAL ACTIVITIES SUCH AS SLEDDING, AND SUMMER ACTIVITIES SUCH AS OPEN FIELD BALL SPORTS, AND FRISBEE.

OPEN SPACE CALCULATION	REQUIRED	PROPOSED
BALCONIES (2,560 SF)		
OPEN SPACE A,B,AND C (43,252 SF)		
TOTAL (CALCULATION: 45,812 SF/ 163,501 SF)	15% (24,525 SF)	28% (45,812 SF)

PLANT SCHEDULE

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	AB	Acer freemanii 'Autumn Blaze' / Autumn Blaze Maple	B & B	5" Cal		9
	SG	Acer freemanii 'Sienna Glen' / Sienna Glen Maple	B & B	3.5" Cal.		13
	WS	Betula papyrifera 'Whitespire' / Whitespire Birch	B & B	2.5"Cal		9
	HL	Gleditsia triacanthos 'Skyline' / Skyline Honey Locust	B & B	3"Cal.		15
	KC	Gymnocladus dioica 'Espresso' / Kentucky Coffeetree	B & B	4.5" CAL.		10
	SO	Quercus bicolor / Swamp White Oak	B & B	3"Cal.		15
	BL	Tilia americana 'Boulevard' / Boulevard Linden	B & B	4"CAL		11
CONIFERS	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	BF	Abies balsamea / Balsam Fir	B & B		6'	15
	LR	Larix laricina / Tamarack	B & B		6	5
	NS	Picea abies / Norway Spruce	B & B		6'	12
	BS	Picea glauca densata / Black Hills Spruce	B & B		6'	15
	PW	Pinus strobus 'Fastigiata' / Pyramidal White Pine	B & B		6	15
ORN. TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	SB	Amelanchier canadensis 'Autumn Brilliance' / Autumn Brilliance Serviceberry	B & B	2"Cal		13
	RE	Cercis canadensis / Eastern Redbud	B & B	2"Cal		12
	IL	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	B & B	2"Cal		13
SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT			
	BH	Diervilla lonicera / Dwarf Bush Honeysuckle	5 gal			69
	LH	Hydrangea paniculata 'Jane' / Little Lime Hydrangea	5 gal			90
	CJ	Juniperus sabina 'Monna' / Calgary Carpet Juniper	5 gal			100
	PM	Pinus mugo 'Slowmound' / Mugo Pine	5 gal			28
	PT	Potentilla fruticosa 'Tango' TM / Fangs Potentilla	5 gal			94
	GL	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	5 gal			52
	GS	Spiraea japonica 'Goldflame' / Spirea	5 gal			37
PERENNIALS	CODE	BOTANICAL / COMMON NAME	CONT			
	SBA	Allium x 'Summer Beauty' / Summer Beauty Allium	1 gal			17
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT			
	33-261	MNDOT Seed Mix 33-261 / Ponds and Wet Areas	Seed			
	34-262	MNDOT Seed mix 34-262 / Wet Prairie	Seed			
	TLR HIG	Turf Sod Highland Sod / Sod	Sod			

NORTH

0 30 60

SCALE IN FEET

NO	DATE	BY	CKD	APPR	COMMENT

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Print Name: Johnnie R. Workman

Date _____ License # _____

PRELIMINARY

DESIGN REVIEW

PERMIT SUBMITTAL

CONSTRUCTION DOCUMENTS

DRAWN BY

DESIGNED BY

CHECKED BY

PROJECT NO. 50521

Sambatek
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Engineering | Surveying | Planning | Environmental

OPEN SPACE EXHIBIT

AV DEVELOPMENT, LLC
CLOVER RIDGE APARTMENTS

CHASKA, MINNESOTA

SHEET 1
1 OF 1
REV.

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C:\PROJECTS\50521\CAD\CIVIL\EXHIBITS\50521-EXHBT-OPEN SPACE.DWG;L1.01 LANDSCAPE PLAN | 3/31/2022 1:32:24 PM | MADISON LONG (LMS TECH)

Project		**Catalog #**		**Type**	
Prepared by		**Notes**		**Date**	



Lumark

Prevail LED

Area / Site Luminaire

Product Features

LumenSafe Technology

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Configurations page 3
- Product Specifications page 3
- Energy and Performance Data page 4
- Control Options page 5

Product Certifications

Quick Facts

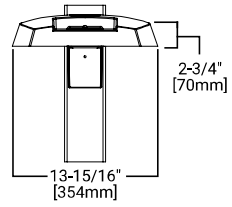
- Lumen packages range from 4,800 - 52,300 lumens (35W - 350W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 160 lumens per watt
- Energy and maintenance savings up to 85% versus HID solutions
- Standard universal quick mount arm with universal drill pattern

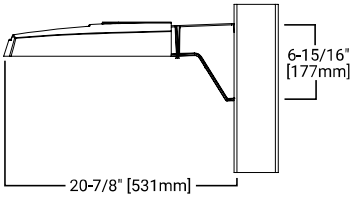
Connected Systems

- WaveLinx

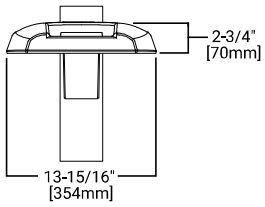
Dimensional Details

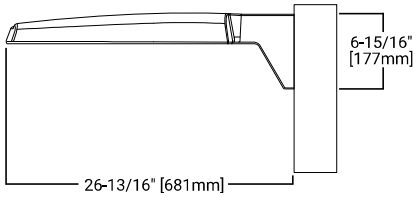
Prevail Petite



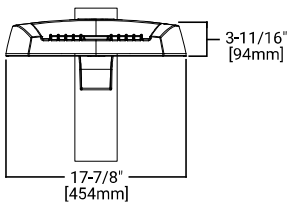


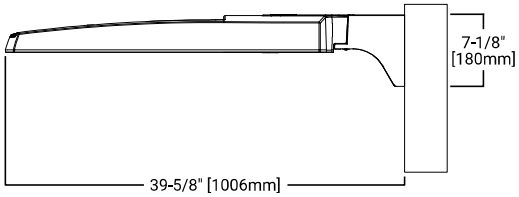
Prevail





Prevail XL





NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Ordering Information

SAMPLE NUMBER: **PRV-XL-C75-D-UNV-T4-SA-BZ**

Product Family [1, 2]	Light Engine [3]	Driver	Voltage	Distribution	Mounting	Color
PRV-P=Prevail Petite **BAA-PRV-P**=Prevail Petite BAA Compliant [23] **TAA-PRV-P**=Prevail Petite TAA Compliant [23]	**C10**=(1 LED) 4,900 Nominal Lumens **C15**=(1 LED) 6,900 Nominal Lumens **C20**=(1 LED) 9,800 Nominal Lumens **C25**=(1 LED) 11,800 Nominal Lumens	**D**=Dimming (0-10V)	**UNV**=Universal (120-277V) **347**=347V **480**=480V [4] **DV**=DuraVolt (277-480V) [4, 25]	**T2**=Type II **T3**=Type III **T4**=Type IV **T5**=Type V	**SA**=Standard Versatile Arm **MA**=Mast Arm **WM**=Wall Mount Arm	**BZ**=Bronze **AP**=Grey **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White
PRV=Prevail **BAA-PRV**=Prevail BAA Compliant [23] **TAA-PRV**=Prevail TAA Compliant [23]	**C15**=(1 LED) 7,100 Nominal Lumens **C25**=(2 LEDs) 13,100 Nominal Lumens **C40**=(2 LEDs) 17,100 Nominal Lumens **C60**=(2 LEDs) 20,000 Nominal Lumens					
PRV-XL=Prevail XL **BAA-PRV-XL**=Prevail XL BAA Compliant [23] **TAA-PRV-XL**=Prevail XL TAA Compliant [23]	**C75**=(4 LED) 26,100 Nominal Lumens **C100**=(4 LED) 31,000 Nominal Lumens **C125**=(4 LED) 36,000 Nominal Lumens **C150**=(6 LED) 41,100 Nominal Lumens **C175**=(6 LED) 48,600 Nominal Lumens					

Options (Add as Suffix)

7030=70 CRI / 3000K CCT [5]
7050=70 CRI / 5000K CCT [5]
HSS=House Side Shield [6]
L90=Optics Rotated 90° Left
R90=Optics Rotated 90° Right
10K=10kV UL 1449 Fused Surge Protective Device
20MSP=20kV MOV Surge Protective Device
20K=Series 20kV UL 1449 Surge Protective Device
HA=50°C High Ambient Temperature [7]
CC=Coastal Construction [8]
PER=NEMA 3-PIN Twistlock Photocontrol Receptacle [26]
PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle [26]
MS/DIM-L08=Dimming Motion and Daylight Sensor, IR Remote Programmable, < 8' Mounting [9, 10]
MS/DIM-L20=Dimming Motion and Daylight Sensor, IR Remote Programmable, 8' - 20' Mounting [9, 10]
MS/DIM-L40=Dimming Motion and Daylight Sensor, IR Remote Programmable, 21' - 40' Mounting [9, 10]
SPB1=Dimming Motion and Daylight Sensor, Bluetooth Programmable, < 8' Mounting [9, 11]
SPB2=Dimming Motion and Daylight Sensor, Bluetooth Programmable, 8' - 20' Mounting [9, 11]
SPB4=Dimming Motion and Daylight Sensor, Bluetooth Programmable, 21' - 40' Mounting [9, 11]
ZW=Wavelinx-enabled 4-PIN Twistlock Receptacle [9]
ZD=SR Driver-enabled 4-PIN Twistlock Receptacle [9]
ZW-SWPD4XX=WaveLinx, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting [9, 12, 13, 14]
ZW-SWPD5XX=WaveLinx, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting [9, 12, 13, 14]
ZD-SWPD4XX=WaveLinx, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting [9, 12, 13, 14]
ZD-SWPD5XX=WaveLinx, SR Driver, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting [9, 12, 13, 14]
(See Table Below)=LumenSafe Integrated Network Security Camera [15, 16]

Accessories (Order Separately) [17, 24]

PRVSA-XX=Standard Arm Mounting Kit [18]
PRVMA-XX=Mast Arm Mounting Kit [18]
PRVWM-XX=Wall Mount Kit [18]
PRVXLSA-XX=Standard Arm Mounting Kit [15]
PRVXLMA-XX=Mast Arm Mounting Kit [15]
PRVXLWM-XX=Wall Mount Kit [15]
MA1010-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1011-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1017-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1018-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon
HS/VERD=House Side Shield [6, 19]
VGS-F/B=Vertical Glare Shield, Front/Back [19]
VGS-SIDE=Vertical Glare Shield, Side [19]
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=NEMA Photocontrol - 120V
OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1027=NEMA Photocontrol - 480V
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [20]
SWPD4-XX=WaveLinx Sensor, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting [12, 13, 14, 21]
SWPD5-XX=WaveLinx Sensor, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting [12, 13, 14, 21]
WOLC-7P-10A=WaveLinx Outdoor Control Module (7-PIN) [22]

NOTES:
1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for alll applications. Refer to installation instructions IB500002EN and pole white paper WP513001EN for additional support information.
3. Standard 4000K CCT and 70CRI.
4. 480V not to be used with ungrounded or impedance grounded systems.
5. Use dedicated IES files on product website for non-standard CCTs.
6. Option will come factory-installed. House Side Shield not suitable with T5 distribution. Not available with PRV-C60 lumen package.
7. Not available with PRV-C60 lumen package. Not available with PRV-P-C25 lumen package.
8. Salt spray tested to over 5,000-hours per ASTM B117 with a scribe rating of 9 per ASTM D1654. Also achieves 7,000-hour rating per ASTM B117 with a scribe rating of 4 per ASTM D1654. Extended lead times may apply.
9. Controls system is not available in combination with a photocontrol receptacle (PER or PER7) or another controls system (MS, SPB, ZD, or ZW). Option not available with DuraVolt (DV) voltage option.
10. Utilizes the Wattstopper sensor FSP-211. Sensor color white unless specified otherwise via PDR. To field-configure, order FSIR-100 accessory separately.
11. Utilizes the Wattstopper sensor FSP-3XX series. Sensor color determined by product finish. See Sensor Color Reference Table. Field-configures via mobile application. See Controls section for details.
12. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F).
13. For the device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more Wavelinx application information.
14. Replace XX with sensor color (WH, BZ, or BK).
15. Only available in PRV-XL configurations C75, C100, C125, C150, or C175.
16. Not available with 347V, 480V, DV, or HA options. Consult LumenSafe system product pages for additional details and compatability information.
17. Replace XX with paint color.
18. Not for use with PRV-XL configurations.
19. Must order one per optic/LED when ordering as a field-installable accessory (1, 2, 4, or 6).
20. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
21. Requires 4-PIN twistlock receptacle (ZD or ZW) option.
22. Requires 7-PIN NEMA twistlock photocontrol receptacle (PER7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS, ZD, ZW or LWR). Operates on 120-347V input voltages.
23. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
24. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
25. DuraVolt drivers feature added protection from power quality issues such as loss of neutral, transients and voltage fluctuations. Visit www.signify.com/duravolt for more information.
26. If DuraVolt (DV) is specified, use a photocontrol that matches the input voltage used.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	Camera Type	Data Backhaul		
L=LumenSafe Technology	**H**=Dome Camera, High Res **Z**=Dome Camera, Remote PTZ	**C**=Cellular, Customer Installed SIM Card **A**=Cellular, Factory Installed AT&T SIM Card	**V**=Cellular, Factory Installed Verizon SIM Card **S**=Cellular, Factory Installed Sprint SIM Card	**E**=Ethernet Networking

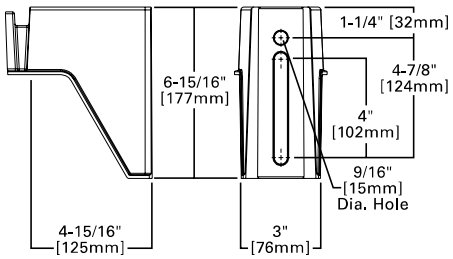
Stock Ordering Information

Product Family [1]	Light Engine	Voltage	Distribution
PRVS=Prevail	**C15**=(1 LED) 7,100 Nominal Lumens **C25**=(2 LEDs) 13,100 Nominal Lumens **C40**=(2 LEDs) 17,100 Nominal Lumens **C60**=(2 LEDs) 20,000 Nominal Lumens	**UNV**=Universal (120-277V) **347**=347V [2]	**T3**=Type III **T4**=Type IV
PRVS-XL=Prevail XL	**C75**=(4 LED) 26,100 Nominal Lumens **C100**=(4 LED) 31,000 Nominal Lumens **C125**=(4 LED) 36,000 Nominal Lumens **C150**=(6 LED) 41,100 Nominal Lumens **C175**=(6 LED) 48,600 Nominal Lumens		

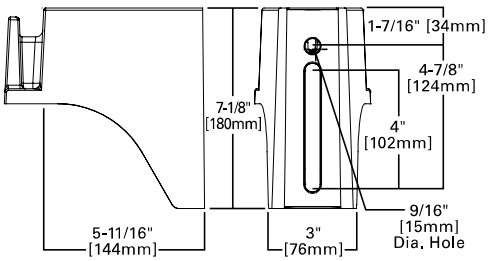
NOTES:
1. All stock configurations are standard 4000K/70CRI, bronze finish, and include the standard versatile mounting arm.
2. Only available in PRVS configurations C15, C25, C40 or C60.

Mounting Details

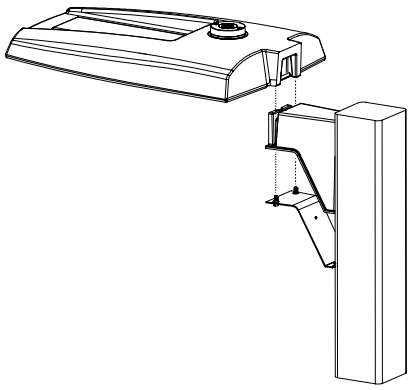
Pole Mount Arm (PRV & PRV-P)



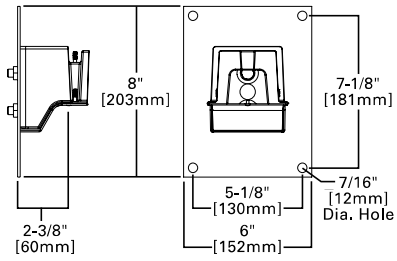
Pole Mount Arm (PRV-XL)



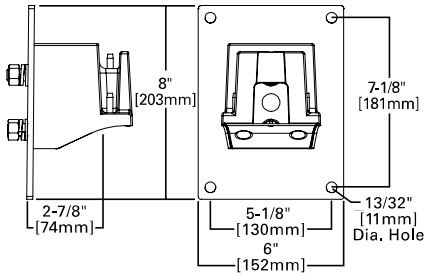
Versatile Mount System



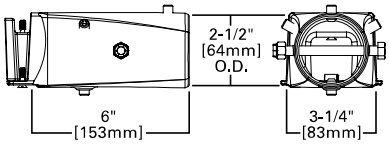
Wall Mount (PRV & PRV-P)



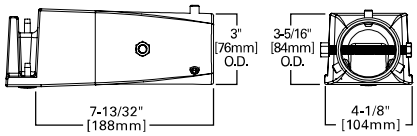
Wall Mount (PRV-XL)



Mast Arm Mount (PRV & PRV-P)



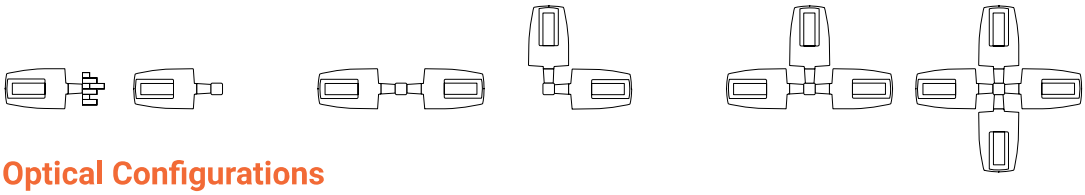
Mast Arm Mount (PRV-XL)



Mounting Configurations and EPAs

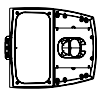
NOTE: For 2 PRV's mounted at 90°, requires minimum 3" square or 4" round pole for fixture clearance. For 2 PRV-XL's mounted at 90°, requires minimum 4" square or round pole for fixture clearance. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for applications.

Wall Mount	Arm Mount Single	Arm Mount 2 @ 180°	Arm Mount 2 @ 90°	Arm Mount 3 @ 90°	Arm Mount 4 @ 90°
	EPA 0.54 (PRV-P) EPA 0.92 (PRV) EPA 1.12 (PRV-XL)	EPA 1.08 (PRV-P) EPA 1.35 (PRV) EPA 2.25 (PRV-XL)	EPA 0.84 (PRV-P) EPA 1.42 (PRV) EPA 2.13 (PRV-XL)	EPA 1.38 (PRV-P) EPA 1.63 (PRV) EPA 2.52 (PRV-XL)	EPA 1.38 (PRV-P) EPA 1.63 (PRV) EPA 2.52 (PRV-XL)

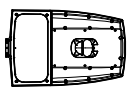


Optical Configurations

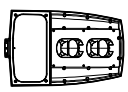
PRV-P-C10/C15/C20/C25 (4,900/6,900/9,800/11,800 Nominal Lumens)



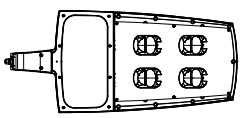
PRV-C15 (7,100 Nominal Lumens)



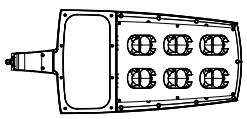
PRV-C25/C40/C60 (13,100/17,100/20,000 Nominal Lumens)



PRV-XL-C75/C100/C125 (26,100/31,000/36,300 Nominal Lumens)



PRV-XL-C150/C175 (41,100/48,600 Nominal Lumens)



Product Specifications

Construction
- Single-piece die-cast aluminum housing
- Tethered die-cast aluminum door

Optics
- Dark Sky Approved (3000K CCT and warmer only)
- Precision molded polycarbonate optics

Electrical
- -40°C minimum operating temperature
- 40°C maximum operating temperature
- >.9 power factor
- <20% total harmonic distortion
- Class 1 electronic drivers have expected life of 100,000 hours with <1% failure rate
- 0-10V dimming driver is standard with leads external to the fixture
- Standard MOV surge protective device designed to withstand 10kV of transient line surge

Mounting
- Versatile, patented, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8"
- A knock-out on the standard mounting arm enables round pole mounting
- Prevail and Prevail Petite: 3G vibration rated
- Prevail XL Mast Arm: 3G vibration rated
- Prevail XL Standard Arm: 1.5G vibration rated

Typical Applications
- Parking lots, Walkways, Roadways and Building Areas

Finish
- Five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness

Shipping Data
- Prevail Petite: 18 lbs. (7.94 kgs.)
- Prevail: 20 lbs. (9.09 kgs.)
- Prevail XL: 45 lbs. (20.41 kgs.)

Warranty
- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Energy and Performance Data

View PRV-P IES files | View PRV IES files | View PRV-XL IES files

Power and Lumens

Product Family		Prevail Petite				Prevail				Prevail XL				
Light Engine		C10	C15	C20	C25	C15	C25	C40	C60	C75	C100	C125	C150	C175
Power (Watts)		35	49	73	94	52	96	131	153	176	217	264	285	346
Input Current @ 120V (A)		0.29	0.41	0.61	0.79	0.43	0.80	1.09	1.32	1.50	1.84	2.21	2.38	2.92
Input Current @ 277V (A)		0.13	0.18	0.27	0.35	0.19	0.35	0.48	0.57	0.66	0.82	0.97	1.04	1.25
Input Current @ 347V (A)		0.11	0.16	0.23	0.29	0.17	0.30	0.41	0.48	0.54	0.66	0.79	0.84	1.02
Input Current @ 480V (A)		0.08	0.12	0.17	0.22	0.12	0.22	0.30	0.35	0.40	0.48	0.57	0.62	0.74
Distribution [1]														
Type II	4000K Lumens	4,775	6,717	9,542	11,521	7,123	13,205	17,172	20,083	26,263	31,231	36,503	41,349	48,876
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	138	137	131	122	137	138	131	131	149	144	138	145	141
	3000K Lumens [1]	4,869	6,595	9,369	11,312	6,994	12,965	16,860	19,718	25,786	30,664	35,840	40,598	47,989
Type III	4000K Lumens	4,782	6,727	9,556	11,538	7,111	13,183	17,144	20,050	26,120	31,061	36,304	41,124	48,610
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	138	137	131	123	137	137	131	131	148	143	138	144	140
	3000K Lumens [1]	4,695	6,605	9,383	11,329	6,982	12,944	16,832	19,686	25,646	30,497	35,645	40,377	47,727
Type IV	4000K Lumens	4,880	6,865	9,752	11,774	7,088	13,140	17,087	19,984	26,098	31,035	36,274	41,089	48,569
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	141	140	134	125	136	137	130	131	148	143	137	144	140
	3000K Lumens [1]	4,792	6,740	9,575	11,561	6,959	12,901	16,777	19,621	25,624	30,471	35,615	40,343	47,687
Type V	4000K Lumens	5,067	7,128	10,126	12,226	7,576	14,045	18,264	21,360	28,129	33,450	39,097	44,287	52,349
	BUG Rating	B3-U0-G2	B3-U0-G2	B4-U0-G3	B4-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	146	145	139	130	146	146	139	140	160	154	148	155	151
	3000K Lumens [1]	4,975	6,999	9,942	12,004	7,438	13,790	17,932	20,972	27,618	32,843	38,387	43,483	51,398

NOTES:
1. For 3000K, 5000K or HSS data, refer to published IES files.

Lumen Maintenance

Configuration	TM-21 Lumen Maintenance (50,000 Hours)	Theoretical L70 (Hours)
Prevail and Prevail Petite at 25°C	91.30%	> 194,000
Prevail and Prevail Petite at 40°C	87.59%	> 134,000
Prevail XL at 25°C	91.40%	> 204,000
Prevail XL at 40°C	89.41%	> 158,000

Sensor Color Reference Table (SPBx)

Housing Finish	Sensor Color
AP=Grey	Grey
BZ=Bronze	Bronze
BK=Black	Black
DP=Dark Platinum	Grey
GM=Graphite Metallic	Black
WH=White	White

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

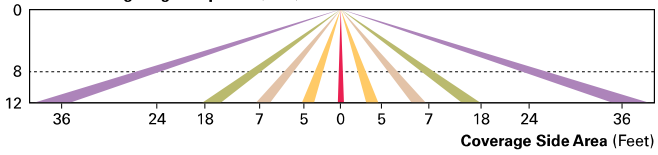
Control Options

0-10V This fixture provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

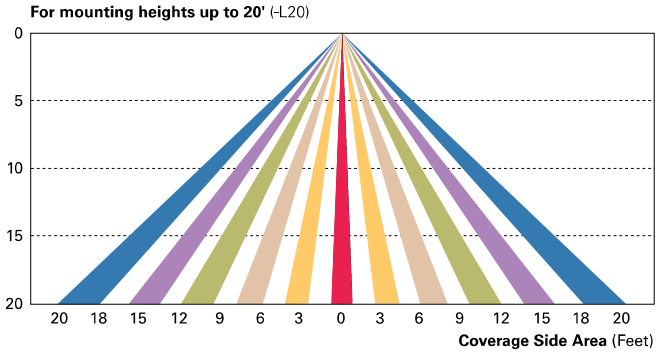
Photocontrol (PER and PER7) Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-PIN standards can be utilized with the PER7 receptacle.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the luminaire will dim down after five minutes of no activity detected. When activity is detected, the luminaire returns to full light output. When a sensor for ON/OFF operation (MS-LXX) is selected, the luminaire will turn off after five minutes of no activity. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or "daylight harvesting." Factory default is enabled for the MS sensors and disabled for the SPB. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes.

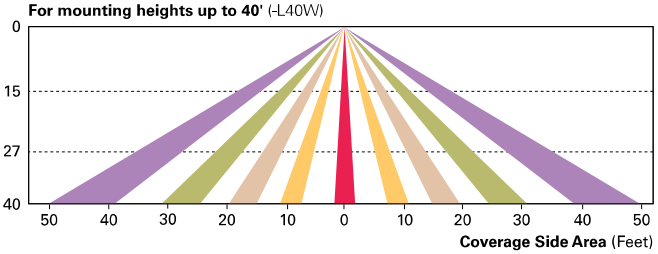
For mounting heights up to 8' (-L08)



For mounting heights up to 20' (-L20)



For mounting heights up to 40' (-L40W)

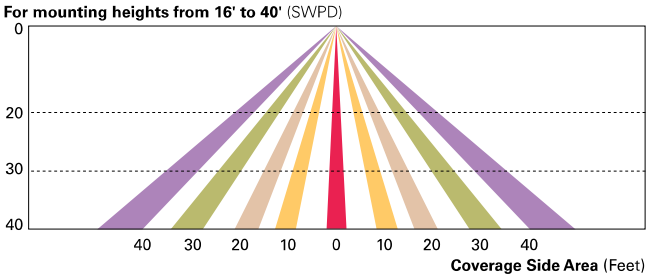


WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

WaveLinx Wireless Sensor (SWPD4 and SWPD5) These outdoor sensors offer passive infrared (PIR) occupancy sensing and a photocell for closed-loop daylight sensing. These sensors can be factory installed or field-installed via simple, tool-less integration into luminaires equipped with the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW). These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected, and the photocell for "dusk-to-dawn" control is default enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.

For mounting heights from 16' to 40' (SWPD)



LumenSafe (LD) The LumenSafe integrated network camera is a streamlined, outdoor-ready camera that provides high definition video surveillance. This IP camera solution is optimally designed to integrate into virtually any video management system or security software platform of choice. No additional wiring is needed beyond providing line power to the luminaire. LumenSafe features factory-installed power and networking gear in a variety of networking options allowing security integrators to design the optimal solution for active surveillance.

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

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Specifications and dimensions subject to change without notice.

REQUEST FOR ACTION
CHASKA CITY COUNCIL
04-18-2022

Subject: **North Water Treatment Plant – City of Chaska – Concept Plan**

Applicant: City of Chaska Water & Sewer Department

Location: Site of Chaska City Well 7, east of Hundertmark Road and north of Pioneer Trail (PID #300280340 and 300280360)

Case No.: 2022-22

Synopsis: Applicant seeks to obtain approval of a concept plan for a water treatment facility on the western edge of the Hazeltine National Golf Course

Prepared By: Nate Kabat

Staff Recommendation: Motion to adopt resolution 2022-46 approving the North Water Treatment Plant - Concept Plan (PC#2022-22), subject to the following conditions.

Background

The City of Chaska Well 7 is located east of Hundertmark Road and north of Pioneer Trail on the western edge of Hazeltine National Golf Course. Currently the water supply from Well 7 is not treated. With the water being presently untreated, the well is limited to use on high demand days primarily in the summer when irrigation use drives peak demand for water.

As the City has grown and continues to develop, Well 7 is becoming more critical as a standard contributor to the City's water supply. Providing compliant water quality is a cornerstone for meeting high standards of life. This project provides the Chaska Water Utility the ability to optimize a highly productive existing water supply resource in Well 7 while also increasing the capacity of treated water available to the community. The overarching goal of the proposed treatment facility at Well 7 is to supplement current treated water supply with an additional source in an important geography within the distribution system.

The purpose of the proposed North Water Treatment Plant (NWTP) is to provide a water treatment facility capable of treating the existing water supply at Well 7 to the standards that the other water supply wells receive at the South Water Treatment Plant (SWTP) located on Victoria Drive adjacent to the Municipal Services Building.

City staff have conducted studies to determine the best location to add wells to the City system. Those studies indicated utilizing the existing asset at Well 7 by adding water treatment is the most cost-effective approach.

Existing Conditions
The site is .56 acres across the two parcel and currently serves at the site of a pumphouse structure that contains Chaska Well 7, several electrical cabinets, and communications cabinets that are leased to various telecommunications companies. The well extends well below grade to access the aquifer. The site is owned by the City of Chaska. The land is currently graded with substantial earth berm containing grasses, vegetation, and various types of deciduous and coniferous trees. The property slopes to the south and drains surface water runoff into a wetland marsh area along the south property line.

Current zoning on the site is O-Open, which effectively allows the current use to continue. With the change to a water treatment plant from the current well use, the site will be rezoned to P2 which is in line with other sites where City facilities are located including the South Water Treatment Plant.

Comprehensive Plan
The site of the proposed North Water Treatment Plant currently contains a well. With the site presently used for public purpose and anticipating the need for the proposed treatment facility on this site, the 2040 Comprehensive Plan guides the parcels proposed for this project as Public/Semi-Public.

The 2040 Comprehensive Plan defines the Public/Semi-Public land use as follows:

Lots or parcels guided for public, semi-public and private educational facilities, places of worship, hospitals, convalescent homes, penal facilities, and facilities of local, state, and federal governments.

Neighboring the site for the proposed North Water Treatment Plant, Hazeltine National Golf Course (proper) is guided as Golf Course, and the approximately 500 feet wide strip adjacent to Hundertmark Road is guided as Neighborhood Mixed Use with a portion of land between those two guided as Open Space. Neighborhood Mixed Use, per the Comp Plan, are afford area for residential, commercial, office, park, civic, and open space uses. Low, Medium, and High-Density Residential uses are allowed. In particular, the area adjacent south of this site at the corner of Hundertmark Road and Pioneer Trail has a concept plan that was approved in 2013 for a neighborhood commercial development.

Project Goals. The applicant stated their project goals as:

- *To supplement current treated water supply with an additional source in an important geography within the distribution system.*
- *To ensure that residents have adequate and equitable access to safe and compliant drinking water.*
- *To fit respectfully into the neighboring community with high regards to appearance, access, sustainability, storm water handling and landscape.*

Concept Plan
Construction of the proposed building will require removal of the existing pumphouse building serving Well 7 to create the opportunity for the most efficient use of the buildable site. A

portion of the proposed water treatment plant structure will be located directly over the foundation of the existing pumphouse, yet the proposed structure will extend further east into the site allowing the building to optimize the land available on the east side of the existing pumphouse building. The additional space is critical for chemical storage for the future facility.

The proposed water treatment plant structure is intended to nestle into the existing earthen berm that arches around the north and east boundaries of the site. The proposed location leverages the berm to provide additional cover against the water treatment plant structure hence helping the building fit naturally into the existing topography.

The height and configuration of the water treatment plant is driven by the process within. The treatment process harnesses gravity to help the water flow through the various stages of treatment. In essence the WTP building encloses an indoor waterfall beginning at the highest point which drives the filtration process through the building to distribution. Therefore, the roof line and building envelope are strictly driven by the treatment process. As a result, adjustments to the building height and configuration are much more difficult to modify. The highest part of the proposed structure is expected to be less than the 35' height ordinance and most of the structure will be 25' with portions housing the well and chemicals closer to 15' above grade.

Facility Design
The proposed exterior building design is intended to align with other City of Chaska public service buildings including the existing water treatment plant at Engler and Victoria Drive, the fire station on Engler, the Chaska Community Center, and Chaska City Hall. All of these facilities contribute to a signature look that includes a Chaska brick blend exterior, incorporation of white metal façade and windows, and red metal gabled roof. This signature look contributes to Chaska's distinct small-town community feel, and clearly establishes City facilities. The proposed design incorporated 360-degree architecture due to its exposure on all sides.

Stantec, who is leading the design and engineering for the facility has developed two options for the facility's roof. Option one would install the signature red metal roof. Option two would install a more muted grey metal roof in line with the roof of the Chaska Curling and Event Center and intended to blend in more with the color palate of the Chaska Commons shopping center buildings. Staff, along with Stantec, seek direction from the Planning Commission and City Council on these options. Planning Commission's feedback did not draw a strong conclusion.

Access/Parking
The concept plan proposes to continue using the existing access onto Hundertmark Road that is used Well 7. The water treatment facility will not house permanent staff. Water and Sewer Department staff will visit the facility on a regular basis. Vehicles needed to service the facility will be accommodated in the planned access drive. The driveway is proposed to be configured with an extended paved surface to allow trucks to back out and exit the site in the forward direction onto Hundertmark.

Setbacks
The required setbacks for the site are as follows:

BUILDING SETBACKS	
Direction	**Setback**
Hundertmark Road	100 feet from centerline
From North, South and East Property Lines	15 feet

Due to the nature of deep well infrastructure the well must remain in the current location to remain compliant with Minnesota Department of Health (MDH) standards. It is believed that the well was constructed in compliance with the well setback requirements established at that time it was drilled. The impact is that the face of the pumphouse structure is approximately 5' closer to Hundertmark than the current setback requirements allow. Due to the location of the well within the pumphouse structure the portion of new water treatment plant structure proposed to be constructed over the existing well will need to follow the existing foundation of the pumphouse and will need to encroach the setback by 5' as it does now. The balance of the proposed water treatment plant structure will comply with the current setback requirements.

Another slight divergence to note, due to the nature of the proposed water treatment building it is expected that underground tanks will be required. Given the constraints of the proposed site it is anticipated that a portion of one of the holding tanks will need to be located within the 100' setback. The top of the proposed tank(s) will be exposed concrete or covered with earth and vegetation.

Utilities
Water and sewer are available to the site. A permanent easement acquired by the City from Hazeltine National Golf Club in December 2014 will be utilized to route sanitary sewer from the proposed site across the open field to the nearest sanitary sewer. The City Engineer is actively involved in ensuring appropriate connections to the facility.

Temporary easements may be required from Hazeltine National Golf Club to conduct some of the grading construction activities and utility installations.

Fees
Staff will work to define the appropriate approach to fees for the City facility.

Trails/Pedestrian Facilities
A City trail currently exists on the west side of Hundertmark Road. No trail is planned on the east side of Hundertmark Road. However, the site will need to be designed to accommodate provision of future sidewalk along the east side of Hundertmark Road when development occurs.

Landscaping
Landscaping will have to meet the City's ordinance in terms of quantity and size. The applicant will be required to submit a landscape plan with the preliminary submittal to show how they meet this ordinance. City staff will be working with Hazeltine to create a buffer that softens visual impact to the golf course.

Lighting
The parking lot lighting and lighting attached to the building proposed for this plan should be fully screened and face downward. Full details of the lighting and photometric analysis will be necessary with the preliminary submission.

Stormwater
With the size of the proposed development being less than an acre, stormwater management requirements do not apply. However, the grading plan should ensure that drainage is routed away from neighboring properties and either captured onsite with smaller scale BMPs like rain gardens or directed towards existing stormwater systems on Hundertmark Road.

Platting
The development is currently platted, so a re-platting is not being considered for this proposal. However, the project is proposed across two separate lots that will need to be combined as part of the process.

Rezoning
The site will need to be rezoned from O-open to P2 which is in line with other sites where City facilities are located including the South Water Treatment Plant as part of the preliminary process..

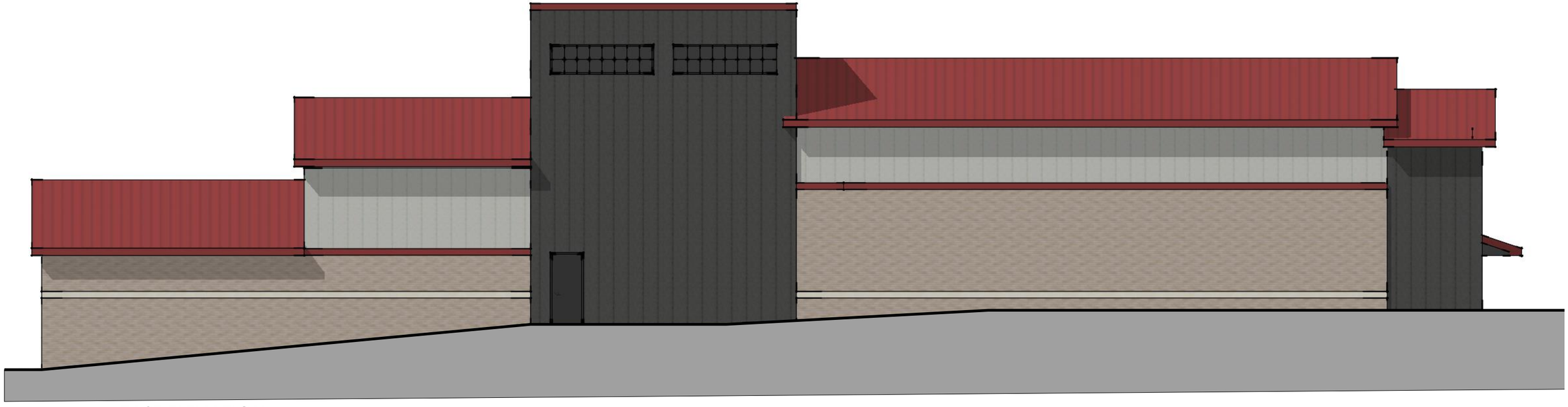
Neighborhood Meeting
City staff have had conversations with Hazeltine. They have expressed interest in understanding visual impacts from the height of the building to the golf course. City staff have explained that the height of the proposed building is necessary to accommodate necessary water treatment equipment and processes. Visual impacts will be addressed through landscaping.

Deadline for Agency Actions
The City of Chaska received the complete application for this request on Wednesday, March 2, 2013. Pursuant to Minnesota State Statutes the City must act on this request by Sunday, May 1, 2022 (60 days), unless the City provides the petitioner with written reasons for an additional 60-day review period. The additional review period would extend to Thursday, June 30, 2022. The City may with the petitioner's consent extend the review period beyond the Thursday, June 30, 2022. Lastly, if the City denies the petitioners request "… it must state in writing the reasons for the denial at the time it denies the request."

CITY COUNCIL ACTION REQUESTED:
Motion to adopt resolution 2022-46 approving the North Water Treatment Plant - Concept Plan (PC# 2022-22).



WEST ELEVATION



EAST ELEVATION

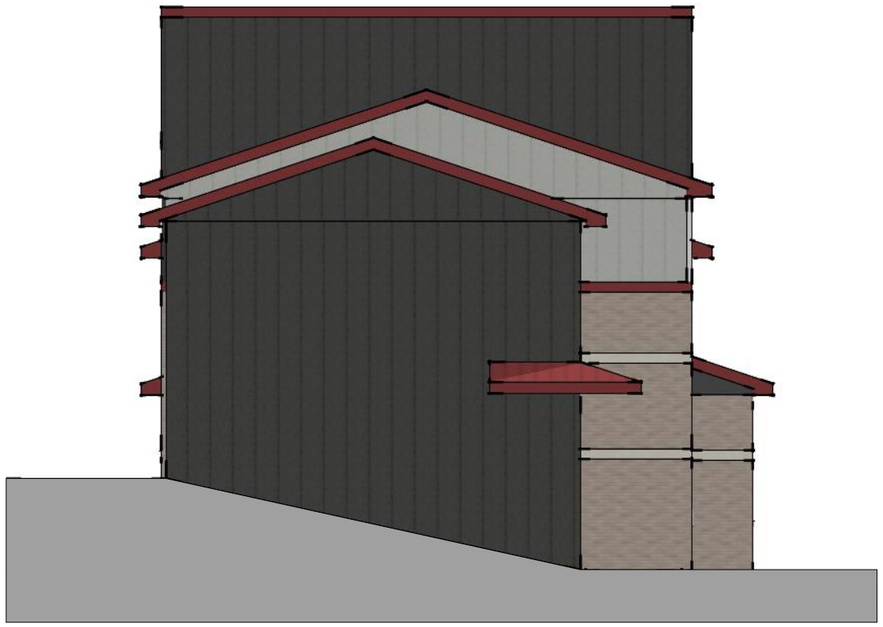
CONCEPT BUILDING ELEVATIONS

COLOR OPTION 1

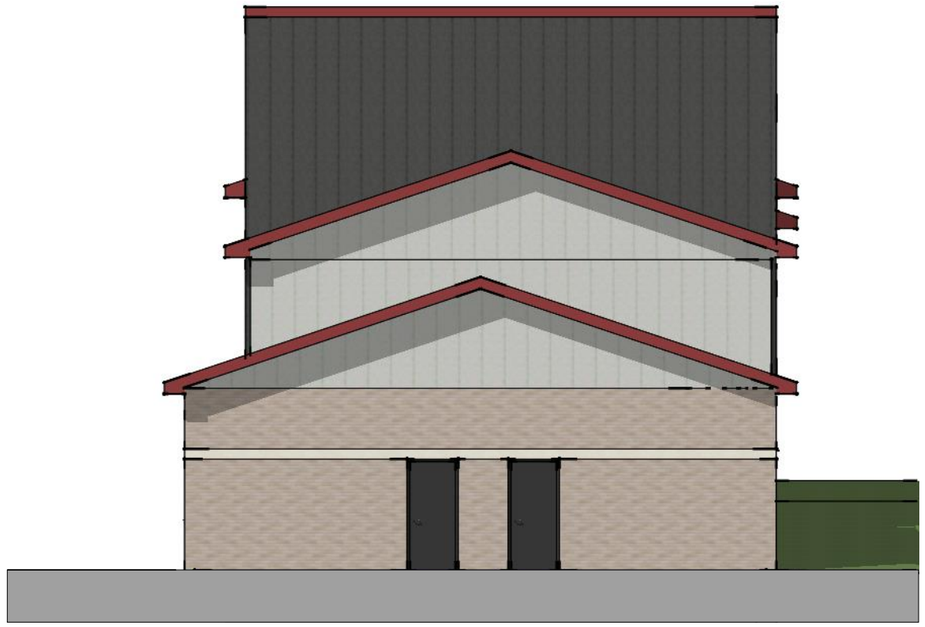
CITY OF CHASKA, MN
WATER TREATMENT PLANT

Stantec

DATE: 03-04-2022 PROJ. NO. 193805386



NORTH ELEVATION



SOUTH ELEVATION



CONCEPT BUILDING ELEVATIONS & PERSPECTIVE

COLOR OPTION 1

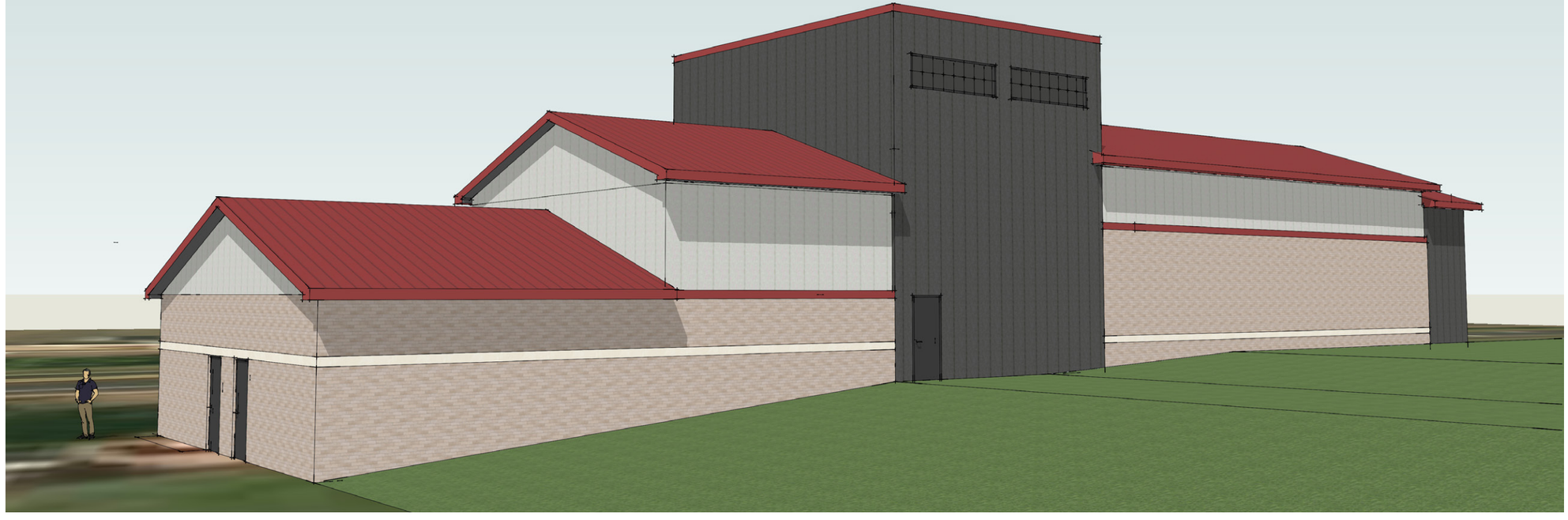
CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 03-01-2022

PROJ. NO. 193805386

Stantec





CONCEPT BUILDING PERSPECTIVES

COLOR OPTION 1

CITY OF CHASKA, MN
WATER TREATMENT PLANT

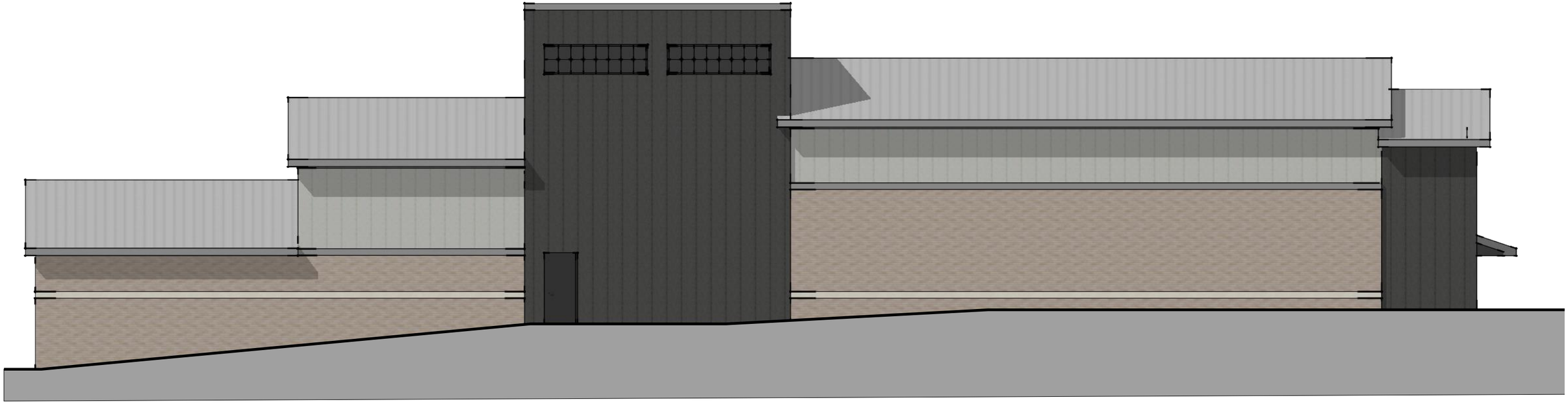
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PROJ. NO. 193805386

Stantec



WEST ELEVATION



EAST ELEVATION

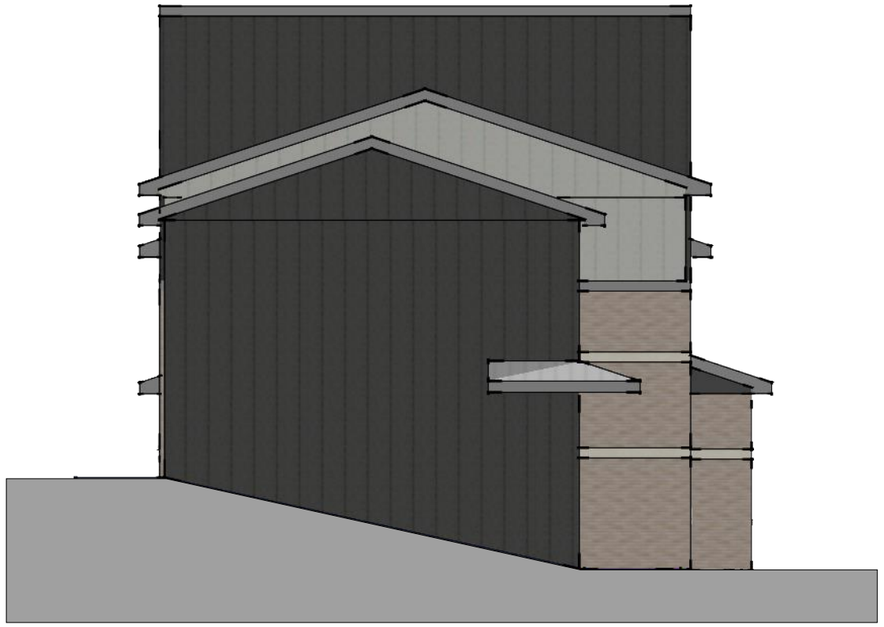
CONCEPT BUILDING ELEVATIONS

COLOR OPTION 2

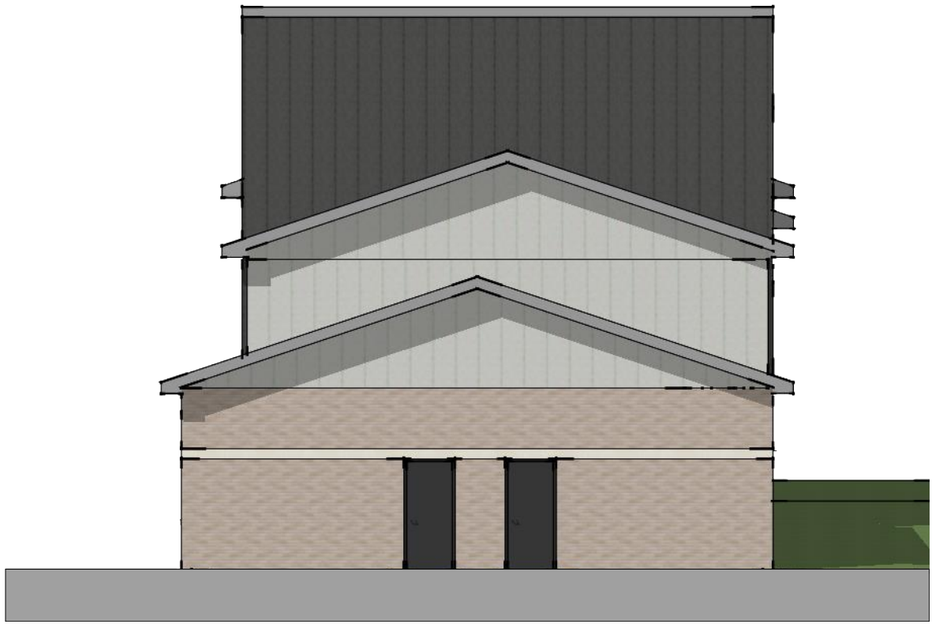
CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 03-01-2022 PROJ. NO. 193805386

Stantec



NORTH ELEVATION



SOUTH ELEVATION



CONCEPT BUILDING ELEVATIONS & PERSPECTIVE

COLOR OPTION 2

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 09-01-2022

PROJ. NO. 193805386

Stantec





CONCEPT BUILDING PERSPECTIVES

COLOR OPTION 2

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 03-01-2022

PROJ. NO. 193805386

Stantec

Plot Date: 01/26/2022 - 5:12pm
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Xrefs: 193805386XSPL 193805386XSKU 193805386_XSKZ 193805386_XSHO

148'

15' RY BLDG SETBACK

35'

28'

WELL 10

51'

WATER TREATMENT PLANT

39'

4"

CLEARWELL BELOW GRADE

29.33'

28'

EXISTING WELL BUILDING PERIMETER

50' FY BLDG SETBACK

10'

110'

HUNDERTMARK RD

E-B

FO-B

N

0 20' 40'

SITE PLAN CONCEPT

CITY OF CHASKA, MN

WATER TREATMENT PLANT

FIGURE 1

Stantec

733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 01/26/2022 - 5:13pm
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Xrefs: 193805386-XPL 193805386XSKU 193805386_XSKZ 193805386_XSHO

148'

15' RY BLDG SETBACK

35'

28'

WATER TREATMENT PLANT

39'

WELL 10

51'

4"

CLEARWELL BELOW GRADE

29.33'

28'

EXISTING WELL BUILDING PERIMETER

50' FY BLDG SETBACK

10'

110'

HUNDERTMARK RD

N

0 20' 40'

SITE PLAN CONCEPT

CITY OF CHASKA, MN

WATER TREATMENT PLANT

FIGURE 1

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Minneapolis, MN 55402
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AERIAL VIEW LOOKING NORTH EAST

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 01-21-2022 PROJ. NO. 193805386

Stantec



VIEW FROM GOLF COURSE LOOKING SOUTH WEST

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 01-21-2022 PROJ. NO. 193805386

Stantec



VIEW LOOKING SOUTH WEST

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 01-21-2022

PROJ. NO. 193805386

Stantec



VIEW LOOKING SOUTH EAST

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 01-21-2022

PROJ. NO. 193805386

Stantec

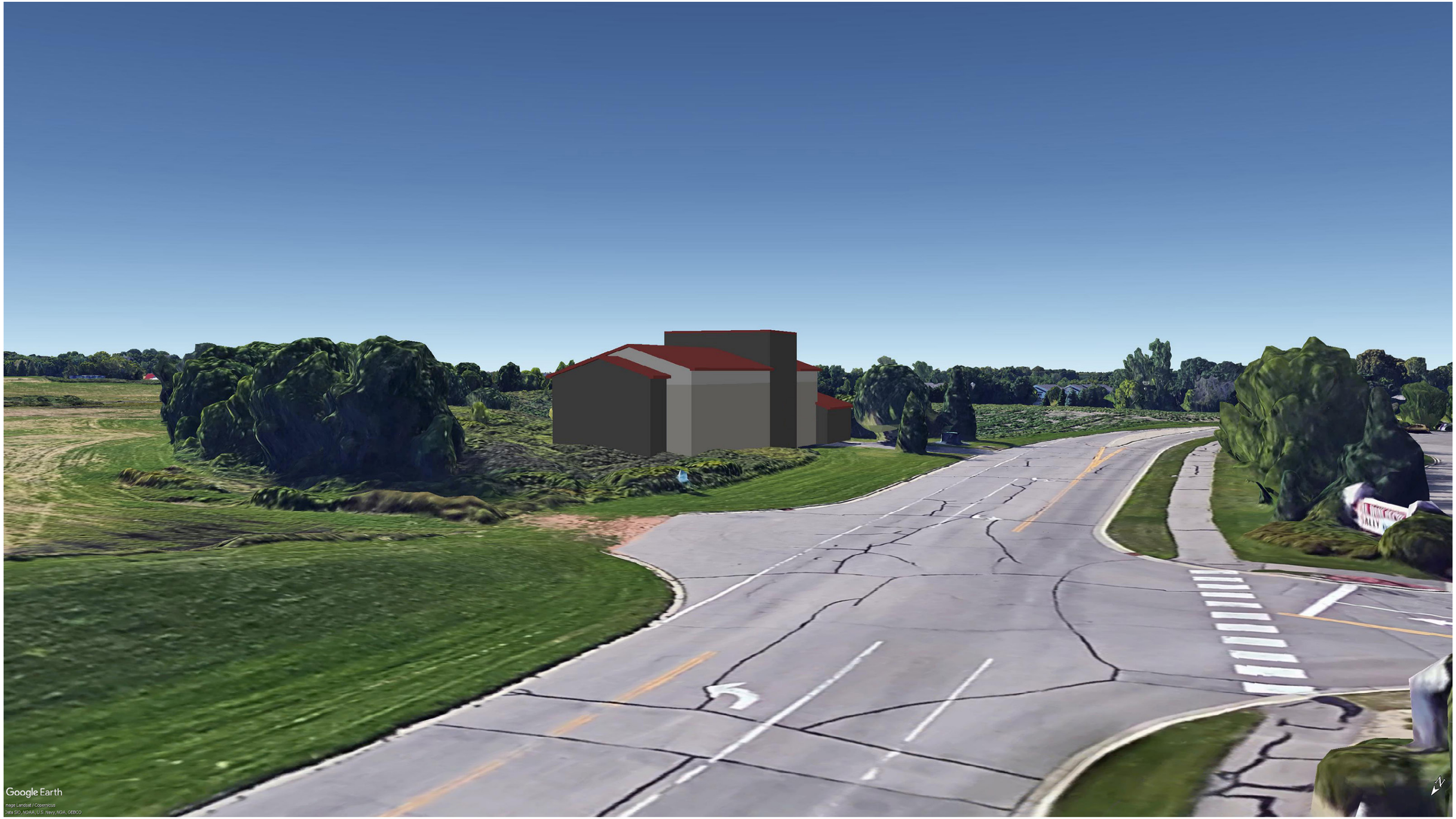


VIEW LOOKING NORTH ALONG HUNDERTMARK RD

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 01-21-2022 PROJ. NO. 193805386

Stantec

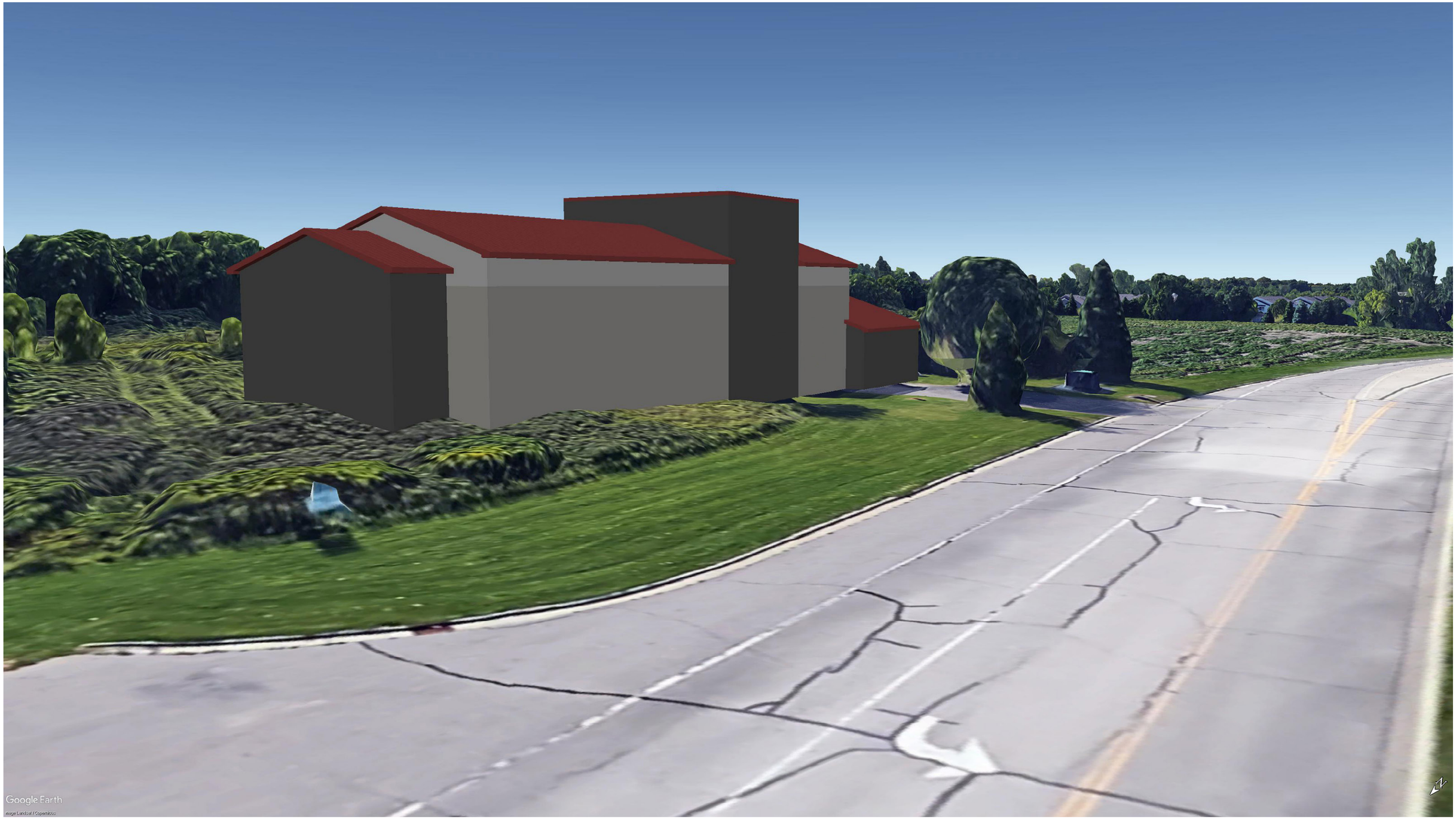


VIEW LOOKING SOUTH ALONG HUNDERTMARK RD

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 01-21-2022 PROJ. NO. 193805386

Stantec



VIEW LOOKING SOUTH ALONG HUNDERTMARK RD

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 01-21-2022

PROJ. NO. 193805386

Stantec

Plot Date: 02/28/2022 - 9:52pm
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Xrefs: 193805386XSKPL, 193805386XSKU, 193805386_XSXZ, 193805386_XSNO, 193805386_XSXV

EXISTING SANITARY SEWER MANHOLE

EXISTING SANITARY SEWER LINE

EXISTING SANITARY SEWER EASEMENT

PROPOSED SANITARY SEWER SERVICE

WELL 10

TWO PARCELS OWNED BY CITY OF CHASKA

EXISTING WATERMAIN

WATER TREATMENT PLANT

HUNDERTMARK RD

PIONEER TRAIL

N

0 200' 400'

SITE PLAN CONCEPT OVERVIEW

CITY OF CHASKA, MN

WATER TREATMENT PLANT

FIGURE 1

Stantec

733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
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DATE 02/28/2022 PROJ. NO. 193805386

Plot Date: 02/01/2022 - 8:56am
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Xrefs: 193805386DR, 193805386XSKU, 193805386_XSXZ, 193805386_XSNO, 193805386_XSXV

EXISTING SANITARY SEWER EASEMENT

PROPOSED SANITARY SEWER SERVICE

TWO PARCELS OWNED BY CITY OF CHASKA

EXISTING WELL BUILDING PERIMETER

WELL 10

WATER TREATMENT PLANT

CHEMICAL DELIVERY TURNAROUND

(2) PARKING LOCATIONS

6' CONCRETE SIDEWALK

CLEARWELL BELOW GRADE

PLANTING AREA

CONNECT TO EXISTING WATERMAIN

PROPOSED BITUMINOUS DRIVEWAY

HUNDERTMARK RD

15' RY BLDG SETBACK

50' FY BLDG SETBACK

51'

35'

28'

39'

4'

10'

110'

29.33'

28'

100'

971 970 969 968 967 966 965 964 963 962 961 960 959 958 957 956 955

N

0 25' 50'

SITE PLAN CONCEPT

CITY OF CHASKA, MN

WATER TREATMENT PLANT

FIGURE 2

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
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DATE 02/28/2022 PROJ. NO. 193805386

Plot Date: 02/01/2022 - 8:57am
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Xrefs: 193805386XSX, 193805386XSXU, 193805386_XSXZ, 193805386_XSNO, 193805386_XSXV

EXISTING SANITARY SEWER EASEMENT

PROPOSED SANITARY SEWER SERVICE

TWO PARCELS OWNED BY CITY OF CHASKA

148'

EXISTING WELL BUILDING PERIMETER

15' RY BLDG SETBACK

WELL 10

35'

28'

WATER TREATMENT PLANT

51'

39'

4'

50' FY BLDG SETBACK

10'

110'

29.33'

28'

CHEMICAL DELIVERY TURNAROUND

6' CONCRETE SIDEWALK

(2) PARKING LOCATIONS

CLEARWELL BELOW GRADE

CONNECT TO EXISTING WATERMAIN

PLANTING AREA

100'

PROPOSED BITUMINOUS DRIVEWAY

HUNDERTMARK RD

N

0 25' 50'

SITE PLAN CONCEPT

CITY OF CHASKA, MN

WATER TREATMENT PLANT

FIGURE 3

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Minneapolis, MN 55402
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LOOKING SOUTHWEST TOWARDS HUNDERMARK ROAD



AT HUNDERMARK LOOKING NORTHEAST TOWARDS SITE



LOOKING WEST FROM SITE TOWARD SHOPPING CENTER



LOOKING NORTHWEST FROM THE SITE

CITY OF CHASKA, MN

WATER TREATMENT PLANT

FIGURE 4

DATE 2/28/2022 PROJ. NO. 193805386

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com



EXISTING SHOPPING CENTER BUILDING WEST OF SITE



CHASKA SOUTH TREATMENT PLANT



EXISTING CHASKA BRICK BLEND



METAL FACADE AND ALUMINUM WINDOW

CITY OF CHASKA, MN

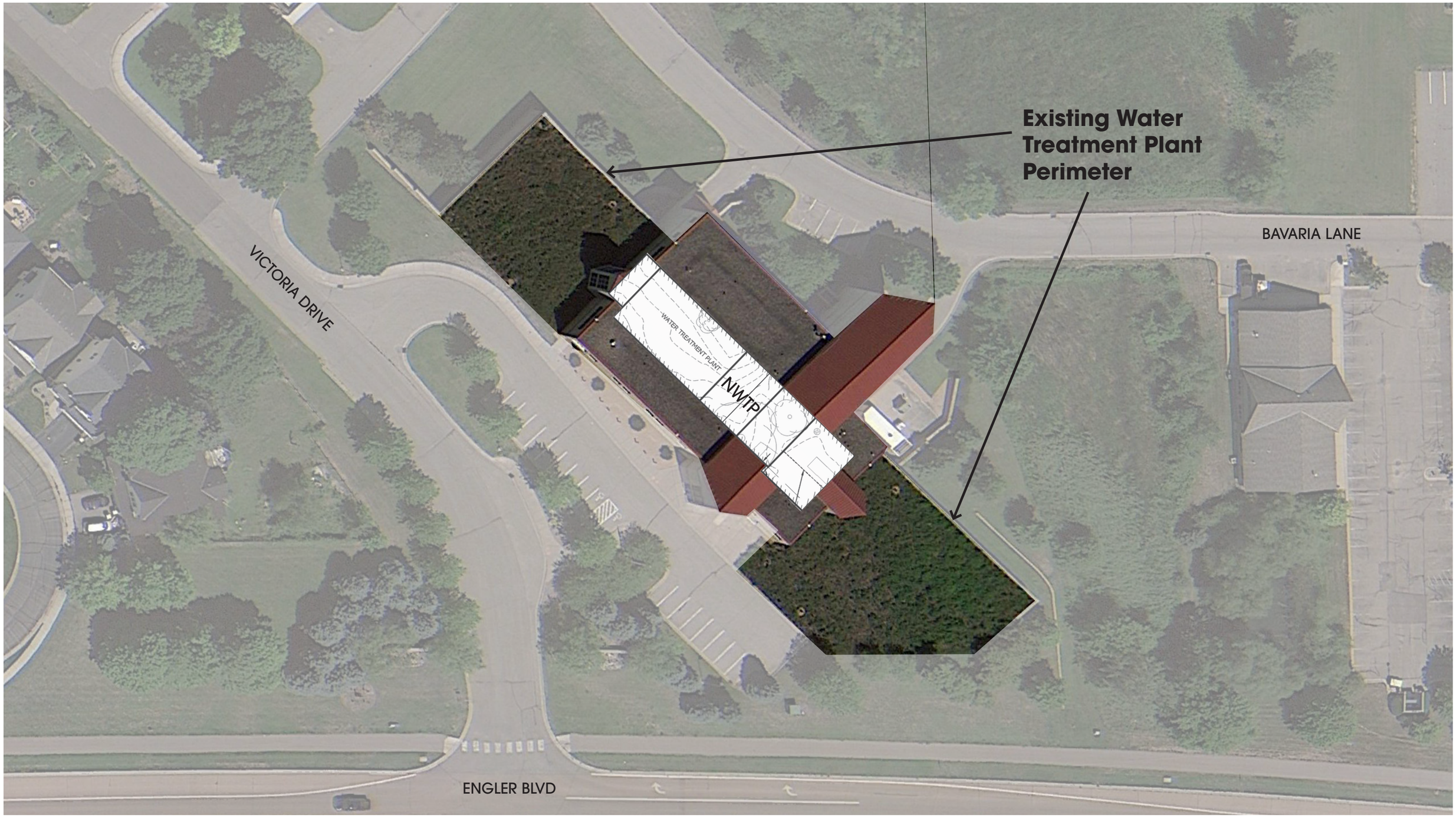
WATER TREATMENT PLANT

FIGURE 5

DATE 2/28/2022 PROJ. NO. 193805386

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Minneapolis, MN 55402
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NWTP to SWTP SIZE COMPARISION

SCALE: 1"=50'

CITY OF CHASKA, MN
WATER TREATMENT PLANT

DATE: 03/11/2022 PROJ. NO. 193805386

Stantec

Plot Date: 03/09/2022 - 3:21 pm
Drawing name: V:\1938\active\193805386\CADD\Dwg\Figures\193805386-Site Plan Concept.dwg
Xrefs: 193805386XREF, 193805386XTU, 193805386_XSEC, 193805386_XSNC, 193805386_XSV



SITE FORCES PLAN

SCALE: 1"=60'

CITY OF CHASKA, MN
NORTH WATER TREATMENT PLANT

DATE: 03/09/2022

PROJ. NO. 193805386

Stantec

Stantec Consulting Services Inc.
733 Marquette Avenue Suite 1000, Minneapolis MN 55402-2314

March 1, 2022
File: 193805386

Attention: Liz Hanson
City Planner
Chaska City Hall
One City Hall Plaza
Chaska, 55318

Dear Liz,

Reference: Concept Site Plan Review for North Water Treatment Plant - Chaska, MN

The purpose of the proposed North Water Treatment Plant (NWTP) is to provide a water treatment facility capable of treating the existing water supply at Well 7 to the standards that the other water supply wells receive at the South WTP located on Victoria Drive (SWTP) adjacent to the Municipal Services Building.

Currently the water supply from Well 7 is not treated. Providing compliant water quality is a cornerstone for meeting high standards of life. This project provides the Chaska Water Utility the ability to optimize a highly productive existing water supply resource in Well 7 while also increasing the capacity of treated water available to the community. The overarching goal of the proposed treatment facility at Well 7 is to supplement current treated water supply with an additional source in an important geography within the distribution system.

As part of its strategy to maintain its small-town values one of the missions in Chaska is to ensure that residents have adequate and equitable access to safe and compliant drinking water. The proposed project incorporates quality physical characteristics representative of other municipal structures in the community and demonstrates a commitment to providing excellent drinking water quality to all customers.

Another goal for the proposed NWTP project is to fit respectfully into the neighboring community with high regards to appearance, access, sustainability, storm water handling and landscape. With these in mind there are two primary architectural philosophies that will be illustrated for consideration. One approach is to utilize building materials and colors that rhyme more closely with the adjacent shopping and dining center along Hundertmark. An alternative approach is to utilize the architectural elements similar to other municipal buildings in the community. Each approach is believed to have merit and will be accommodated based on feedback received from Planning Commission and Staff pertaining to your priorities for this site/location.

Building Materials

The structure will primarily consist of concrete structure finished with a primarily brick facade consistent with the City's water treatment plant located on the corner of Engler Blvd and Victoria Drive. Please note that both color alternatives propose to utilize a blend of buff, gold and yellow brick (also known as the "Chaska Blend"), with portions of white and/or light grey metal wall panels and darker metal wall panels. The roof is proposed to be a standing metal seam roof consistent with other City of Chaska public buildings. The base

color shown is red. We have provided an alternative option as requested by staff for consideration. The doors and windows are proposed to be aluminum.

General Building Information:

The proposed structure will have the following probable characteristics:
Proposed Finished Square feet : 5175 SF on the Main Level, 1305 SF Upper Level, and 6000 SF Lower Level (includes the clearwell bump out)
Building Occupancy: The occupancy for Chemical Storage Rooms is H4, occupancy for other spaces is F2, low hazard

Site:

The proposed site for the WTP project is a 150' x 100' tract of land located on the east side of Hundertmark Road beginning 150' north of Pioneer Trail. The land is currently graded with substantial earth berm containing grasses, vegetation, and various types of deciduous and coniferous trees. The property slopes to the south and drains surface water runoff into a wetland marsh area along the south property line.

The property currently houses the City's Well 7 pumphouse structure, several electrical cabinets, and communications cabinets that are leased to various telecommunications companies. The existing well house structure is constructed with a blend of yellow brick (Chaska Blend) with a burnt orange standing seam perimeter. The setbacks for the site include a 100' setback from the centerline of Hundertmark Road which extends into the proposed property by approximately 50' from the east edge of the property. The back and side lot setbacks are understood to be 15'. These setbacks exist on the north, east and south property lines. It understood that the 100' setback from Hundertmark Road is intended to establish the required setback distance to the face of above grade building. Due to the nature of the proposed water treatment building it is expected that underground tanks will be required. Given the constraints of the proposed site it is anticipated that a portion of one of the holding tanks will need to be located within the 100' setback. The top of the proposed tank(s) will be exposed concrete or covered with earth and vegetation.

Construction of the proposed building will require removal of the existing pumphouse building serving Well 7 to create the opportunity for the most efficient use of the buildable site. A portion of the proposed WTP structure will be located directly over the foundation of the existing pumphouse yet the proposed structure will extend further east into the site allowing the building to optimize the land available on the east side of the existing pumphouse building. This space is critical for chemical storage for the future facility. It is noted that the existing Well 7 resides within the pumphouse structure and extends well below grade to access the aquifer.

Due to the nature of deep well infrastructure the well must remain in the current location to remain compliant with Minnesota Department of Health (MDH) standards. It is believed that the well was constructed in compliance with the well setback requirements established at that time it was drilled.
The impact is that the face of the pumphouse structure is approximately 5' closer to Hundertmark than the current setback requirements allow. Due to the location of the well within the pumphouse structure the portion of new NWTP structure proposed to be constructed over the existing well will need to follow the existing foundation of the pumphouse and will need to encroach the setback by 5' as it does now. The balance of the proposed NWTP structure will comply with the current setback requirements.

Reference: Concept Site Plan Review for North Water Treatment Plant - Chaska, MN

Plant Operation and Utilities:

The proposed NWTP structure is intended to nestle into the existing earthen berm that arches around the north and east boundaries of the site. The proposed location leverages the berm to provide additional cover against the NWTP structure hence helping the building fit naturally into the existing topography. Temporary easements may be required from Hazeltine National Golf Club to conduct some of the grading construction activities and utility installations. A permanent easement acquired by the City from Hazeltine National Golf Club in December 2014 will be utilized to route sanitary sewer from the proposed site across the open field to the nearest sanitary sewer. The proposed sanitary alignment and existing easement are shown on the Site Plan Overview Figure 1. The need for this utility access point has been known for several years and Hazeltine is aware of this proposed sewer installation. The sewer is proposed to directionally drill this sewer as to minimize disruption to the Hazeltine's property. It is anticipated that the contours of the existing land surface will be returned to as close to existing as possible and vegetation will be restored.

Unlike other facilities, the height and configuration of a WTP is driven by the process within. The treatment process that is anticipated to be employed at the proposed WTP is one that harnesses gravity to help the water flow through the various stages of treatment. In essence the WTP building encloses an indoor waterfall beginning at the highest point with the aeration tower extending to detention, filtration with finished water being stored in a clearwell tank prior to being pumped to distribution. The roof line and building envelope are strictly driven by the treatment process. As a result, adjustments to the building height and configuration are much more difficult to modify. The highest part of the proposed structure is expected to be less than the 35' height ordinance and the majority of the structure will be 25' with portions housing the well and chemicals closer to 15' above grade. Elevation views of the proposed facility are provided in the attached concept figures.

Public work staff will access to the site daily to check on the well, chemical feed systems and water treatment process. Chemical deliveries may range from weekly to monthly. It is anticipated that the existing driveway to the pumphouse structure will be sufficient for these chemical deliveries as long as adequate pavement for turning is provided. The driveway is proposed to be configured with an extended paved surface to allow trucks to back out and exit the site in the forward direction onto Hundertmark. This is generally depicted on the proposed the site plans.

Reference: Concept Site Plan Review for North Water Treatment Plant - Chaska, MN

We are grateful for your comments regarding this submittal and look forward to working with you and other City staff to answer any questions or concerns you may have.

Regards,

Stantec Consulting Services Inc.

Ryan Capelle PE (MN, ND, WI)
Senior Associate
Phone: 651-604-4857
Ryan.Capelle@stantec.com

Eric Lembke PE (MN, ND, WI, IL)
Principal
Phone: 651-775-5156
Eric.Lembke@stantec.com

Attachments: Building Rendering Concept Plans
Site Plan, Images and Materials Figures 1-5

c. Matt Haefner
Matt Clark

CITY OF CHASKA
CARVER COUNTY, MINNESOTA

RESOLUTION

DATE 04/18/2022 RESOLUTION NO. 2022-46

MOTION BY COUNCILMEMBER SECOND BY COUNCILMEMBER

A RESOLUTION APPROVING THE NORTH WATER TREATMENT PLANT CONCEPT PLAN (PC#2022-22)

WHEREAS, the proposal is for one approximate 5,700 square foot water treatment plant facility ranging from 35 feet to 15 feet in height; and

WHEREAS, the project site is 0.56 acres owned by the City of Chaska comprised of adjacent PIDs 300280360 and 300280340; and

WHEREAS, PID 300280340 is the current location of the Well 7 pump house; and

WHEREAS, the 2040 Comprehensive Plan guides the site for Public/Semi-public; and

WHEREAS, the current zoning for the site is O-Open which does not include a water treatment facility as a permitted use; and

WHEREAS, the site will need to be rezoned to P2 as part of the preliminary process to accommodate the water treatment facility; and

WHEREAS, the applicant must show in the preliminary submittal how they meet the City's Building Design/Materials ordinance by calling out each material on the elevations and their percentage make-up; and

WHEREAS, the applicant must show in the preliminary submittal how they meet all other City site design requirements including landscape and lighting requirements; and

WHEREAS, an area for focus with the landscaping plan will be utilizing the existing berm on the east side of the site to enhance plantings that screen the view for Hazeltine National Golf Club; and

WHEREAS; the applicant will need to work with City Staff to determine applicable development fees including area fees, connection charges, etc.; and

WHEREAS, the applicant will need to show provision of space to accommodate a future sidewalk connection along Hundertmark Road; and

WHEREAS, on April 13, 2022 the Planning Commission recommended approval to the City Council of the Concept Plan for the North Water Treatment Plant - Concept Plan (PC#2022-22).

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Chaska, Minnesota, hereby approves the Concept Plan for the North Water Treatment Plant - Concept Plan (PC#2022-22), subject to the aforementioned stipulations and the following conditions:

1. Approvals shall be based on the following graphic exhibits:
    a. Chaska WTP Concept Progress (pgs 1-6), submitted by City of Chaska, drafted by Stantec, dated 03/01/2022
    b. Chaska WTP Site Relationship Views (pgs 1-9), submitted by City of Chaska, drafted by Stantec, dated 01/26/2022
    c. Figure 1 - Site Plan Concept Overview (pg 1), submitted by City of Chaska, drafted by Stantec, dated 02/28/2022
    d. Figure 2 - Site Plan Concept (pg 1), submitted by City of Chaska, drafted by Stantec, dated 02/28/2022
    e. Figure 3 - Site Plan Concept No Contures (pg 1), submitted by City of Chaska, drafted by Stantec, dated 02/28/2022
    f. Figure 4 Existing Site Images (pg 1), submitted by City of Chaska, drafted by Stantec, dated 02/28/2022
    g. Figure 5 Materials (pg 1), submitted by City of Chaska, drafted by Stantec, dated 02/28/2022
    h. Chaska WTP and SWTP Bldg Comparision (pg 1), submitted by City of Chaska, drafted by Stantec, dated 03/11/2022
    i. Chaska WTP Site Forces Graphic (pg 1), submitted by City of Chaska, drafted by Stantec, dated 03/01/2022
    j. NWTP Narrative Letter 3-1-22- signed, submitted by Stantec, dated
2. Approval of rezoning from Open to P2 – Public Buildings.
3. Compliance with the zoning P2 (Section 15.12.180) of the Chaska Zoning Ordinance).
4. Compliance with section 15.28.120 Building Design/Materials for Commercial, Industrial, Public, & Institutional.
5. Compliance with applicable zoning requirements, in particular Chapter 9 (General Requirements).
6. Provision of 360-degree architecture be used on all facades.
7. Provision that if masonry is used that they are natural stone and/or full-face modular brick in order to be considered Class I materials.
8. Provision of a landscape plan meeting all applicable requirements of Chapter 15.28.070 of the Zoning Code.
9. Provision of adequate screening and landscaping to neighboring properties to be addressed at Preliminary submittal.
10. Adherence to the following building setbacks:
    a. Hundertmark Road: 100 feet from centerline
    b. From North, South and East Property Lines property lines: 15 feet
11. Provision of lighting specs to be submitted with preliminary site plan submittal.
12. Coordination with the City Engineer for the provision of public utilities to the site.
13. Provision of a grading plan should route drainage away from neighboring properties.
14. Provision to combine the two lots of the proposed development site into a single lot.

15. Provision to obtain necessary temporary easements from Hazeltine National Golf Club to conduct grading construction activities and utility installations.

Passed and adopted by the City Council of the City of Chaska, Minnesota, this 21st day of March, 2022.

_____
Mark Windschitl, Mayor

Attest:_____
Chaska Deputy Clerk

CLAIMS ROSTER REPORT

FOR COUNCIL MEETING: **April 18, 2022**

Paid and Unpaid Invoices:
Check #'s 341920-342125 **$1,539,322.82**

Paid Electronic Invoices:
Wire #'s 3200-3211 **$312,661.41**

Amount for Approval-Council Meeting:
April 18, 2022 **$1,851,984.23**

Checks

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CHECK DATE: 04/05/2022									
100016 ABM EQUIPMENT & SUPPLY INC									
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CHECK DATE: 04/19/2022									
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BT2035025 CHECK DATE: 04/19/2022		03/30/2022	041922	341956	600.00	04/30/2022	INV	PD	P/R & CCC Analysis Progre
100172 WC ENTERPRISES INC									
P50162928 CHECK DATE: 04/19/2022		03/29/2022	041922	341957	32.25	04/29/2022	INV	PD	WTP EMERGENCY LIGHT
P50163105 CHECK DATE: 04/19/2022		03/29/2022	041922	341957	48.27	04/29/2022	INV	PD	FLASHLIGHT
P50201830 CHECK DATE: 04/19/2022		03/30/2022	041922	341957	37.77	04/30/2022	INV	PD	BATTERY FOR ELEVATOR

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
					118.29				
100174 BAUER BUILT TIRE AND BATTERY									
180279983		04/07/2022	041922	341958	775.20	05/15/2022	INV	PD	#710 TIRES FOR VACTOR
CHECK DATE: 04/19/2022									
100182 BECKER ARENA PRODUCTS INC									
603415		12/08/2021	041922	341959	41,669.10	05/08/2022	INV	PD	2ND 45% OF RINK AT CLOVER
CHECK DATE: 04/19/2022									
105265 BEEBE, DENISE									
99564		03/31/2022	041922	341960	130.34	04/30/2022	INV	PD	MILEAGE-CLERK MTGS, MCFOA
CHECK DATE: 04/19/2022									
100188 BERRY COFFEE COMPANY									
894216		04/06/2022	041922	341961	89.84	05/06/2022	INV	PD	Lodge coffee
CHECK DATE: 04/19/2022									
894217		04/06/2022	041922	341961	38.50	05/06/2022	INV	PD	CCC Facility coffee
CHECK DATE: 04/19/2022									
					128.34				
110457 MICHELLE BINZEN									
99648		04/06/2022	041222	341925	250.00	04/12/2022	INV	PD	HONORARIUM-WELLNESS LUNCH
CHECK DATE: 04/12/2022									
100201 BCBSM INC									
220404248533		04/05/2022	041222	341926	167,773.11	04/20/2022	INV	PD	MAY EMP INS PREM-MEDICAL
CHECK DATE: 04/12/2022									
102279 BOLTON & MENK INC									
0286165		03/24/2022	041922	341962	131,985.98	04/29/2022	INV	PD	TH 41 & CSAH 61 IMPROVEME
CHECK DATE: 04/19/2022									
0286969		03/31/2022	041922	341962	12,503.75	05/11/2022	INV	PD	212 MEDICAL CENTER
CHECK DATE: 04/19/2022									
					144,489.73				
100214 BORDER STATES INDUSTRIES INC									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
923930426	220040	03/28/2022	041922	341963	85.62	04/28/2022	INV	PD	(5) CONNECT PED 4 COVERED
CHECK DATE: 04/19/2022									
923956276	220041	03/31/2022	041922	341963	146.88	04/25/2022	INV	PD	CONNECT PED 4 CONVERED 35
CHECK DATE: 04/19/2022									
923970672	220042	04/04/2022	041922	341963	597.60	05/25/2022	INV	PD	24 ELBOW STANDOFF PLUG CA
CHECK DATE: 04/19/2022									
923981114		04/05/2022	041922	341963	2,373.69	05/25/2022	INV	PD	CODING TAPE - OPERATING S
CHECK DATE: 04/19/2022									
923989206	220048	04/06/2022	041922	341963	113.65	05/25/2022	INV	PD	1 FUSE BAYONET 100 AMP
CHECK DATE: 04/19/2022									
924013349		04/11/2022	041922	341963	20.16	05/25/2022	INV	PD	PUTTY TAPE
CHECK DATE: 04/19/2022									
924013350	220052	04/11/2022	041922	341963	68.65	05/25/2022	INV	PD	6=SLEEVE 500 MCM COMP (BA
CHECK DATE: 04/19/2022									
					3,406.25				
100220 BOYER FORD TRUCKS INC									
008P6205		01/18/2022	041922	341964	181.71	04/05/2022	INV	PD	#327 TANKER BRAKE PADS
CHECK DATE: 04/19/2022									
008P9107		04/04/2022	041922	341964	419.80	05/10/2022	INV	PD	#312 BATTERIES
CHECK DATE: 04/19/2022									
008P9148		04/05/2022	041922	341964	-146.88	05/04/2022	CRM	PD	CREDIT #312 BATTERY
CHECK DATE: 04/19/2022									
					454.63				
102474 STATE OF MINNESOTA; DEPARTMENT OF PUBLIC SAFETY									
00000695650		03/31/2022	041922	341965	270.00	04/30/2022	INV	PD	CJDN Access Fee
CHECK DATE: 04/19/2022									
100324 NEW LINE CUSTOM UPHOLSTERY INC									
24961		03/24/2022	041922	341966	225.00	04/23/2022	INV	PD	#104 SEAT REPAIR
CHECK DATE: 04/19/2022									
24980		04/01/2022	041922	341966	225.00	05/01/2022	INV	PD	#718 SEAT REPAIR
CHECK DATE: 04/19/2022									
					450.00				
100275 CALLAWAY GOLF									
934556038		03/29/2022	041922	341967	362.30	07/27/2022	INV	PD	RESALE

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 04/19/2022									
934573512		04/01/2022	041922	341967	405.90	07/30/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
934640206		04/11/2022	041922	341967	1,200.00	07/10/2022	INV	PD	RANGE BALLS
CHECK DATE: 04/19/2022									
					1,968.20				
100323 CDW GOVERNMENT INC									
V082448		03/28/2022	041922	341968	338.24	04/27/2022	INV	PD	CCC PATCH PANEL EQUIPMENT
CHECK DATE: 04/19/2022									
V233821		03/30/2022	041922	341968	415.85	04/29/2022	INV	PD	ADOBE PRO FOR ADMINISTRAT
CHECK DATE: 04/19/2022									
V636074		04/07/2022	041922	341968	-82.11	04/30/2022	CRM	PD	CREDIT-SURFACE PEN-HR NEW
CHECK DATE: 04/19/2022									
					671.98				
100332 CENTERPOINT ENERGY RESOURCES CORP									
105010300/MAR22		04/04/2022	041422	341934	4,940.63	05/02/2022	INV	PD	MAR 3210 CHASKA BLVD GAS
CHECK DATE: 04/14/2022									
109045922/MAR22		04/05/2022	041422	341934	11,220.80	05/03/2022	INV	PD	MAR 1661 PARK RIDGE DR GA
CHECK DATE: 04/14/2022									
109052076/MAR22		04/05/2022	041422	341934	7,343.60	05/03/2022	INV	PD	MAR 1611 PARK RIDGE DR GA
CHECK DATE: 04/14/2022									
					23,505.03				
100337 QWEST CORPORATION									
313773369/APR22		04/01/2022	041422	341935	104.64	04/29/2022	INV	PD	APR CCC BURGLAR ALARM
CHECK DATE: 04/14/2022									
100374 CHANHASSEN, CITY OF									
March 2022		04/06/2022	041922	341969	28.40	04/28/2022	INV	PD	MAR HWY 41/82ND ST SIGNAL
CHECK DATE: 04/19/2022									
103955 CHASKA AREA FISHING WITH FRIENDS									
98849		03/14/2022	041922	341970	920.00	04/19/2022	INV	PD	Reimburse 2021 program re
CHECK DATE: 04/19/2022									
100346 CHASKA DOWNTOWN BUSINESS ALLIANCE									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
Q2 2022		04/07/2022	041922	341971	14,525.00	05/07/2022	INV	PD	2ND QTR SPECIAL SERVICE D
CHECK DATE: 04/19/2022									
100377 CHASKA ROTARY CLUB									
5721		04/01/2022	041922	341972	300.00	04/30/2022	INV	PD	1ST QTR DUES, MEALS-PODHR
CHECK DATE: 04/19/2022									
100384 CHASKA VALLEY FAMILY THEATRE									
99485		03/31/2022	041922	341973	710.00	04/30/2022	INV	PD	71 tickets for The Lodge
CHECK DATE: 04/19/2022									
105431 EUGENE FLAUVIN MILLER									
99569		03/31/2022	041922	341974	250.00	04/30/2022	INV	PD	#108 DOOR REPAIR
CHECK DATE: 04/19/2022									
100345 CHASKA HIGH SCHOOL BOYS HOCKEY BOOSTER CLUB									
2022-01		03/31/2022	041922	341975	400.00	04/30/2022	INV	PD	Hockey Net Pegs-Partial R
CHECK DATE: 04/19/2022									
110240 CINTAS CORPORATION NO 2									
4115319339		04/04/2022	041922	341976	90.71	05/04/2022	INV	PD	CCC Rug Service
CHECK DATE: 04/19/2022									
9171457176		04/01/2022	041922	341976	545.00	04/30/2022	INV	PD	AED Maintenance
CHECK DATE: 04/19/2022									
					635.71				
109942 MANSFIELD TOP SERVICES INC									
32009008171		04/01/2022	041922	341977	3,325.00	05/01/2022	INV	PD	Apr Curl/Event Cleaning
CHECK DATE: 04/19/2022									
102659 ICON ENTERPRISES INC									
224031		04/08/2022	041922	341978	43.25	05/08/2022	INV	PD	CHASKA.GOV SSL CERTIFICAT
CHECK DATE: 04/19/2022									
110478 CLAY, KRISTI									
10003008		04/12/2022	041922	341979	152.28	05/12/2022	INV	PD	CREDIT BALANCE REFUND-274
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
100416 ROGER CLEVELAND GOLF CO INC									
6525162 NO CHECK DATE: 04/19/2022		07/22/2021	041922	341980	-194.40	08/20/2021	CRM	PD	RESALE CREDIT-RETURNED WE
6851563 SO CHECK DATE: 04/19/2022		03/25/2022	041922	341980	59.75	06/23/2022	INV	PD	RESALE
6855380 SO CHECK DATE: 04/19/2022		03/28/2022	041922	341980	859.56	05/27/2022	INV	PD	JUNIOR GOLF GIVEAWAYS
6858373 SO CHECK DATE: 04/19/2022		03/29/2022	041922	341980	132.75	07/27/2022	INV	PD	RESALE
6861737 SO CHECK DATE: 04/19/2022		03/30/2022	041922	341980	383.25	06/28/2022	INV	PD	RESALE
					1,240.91				
100419 CLOVER CONDOMINIUM ASSOCIATION									
498838-5 CHECK DATE: 04/19/2022	220002	04/15/2022	041922	341981	419.95	05/01/2022	INV	PD	MAY COMMUNITY ROOM DUES
109691 PRO-SHOPKEEPER COMPUTER SOFTWARE COMPANY									
366875 CHECK DATE: 04/19/2022		04/03/2022	041922	341982	625.00	05/03/2022	INV	PD	APR TC SOFTWARE
100428 COBRA GOLF INC									
G2852870 CHECK DATE: 04/19/2022		04/02/2022	041922	341983	3,445.22	07/01/2022	INV	PD	RESALE
109773 COMMUNITY DESIGN GROUP INC									
FJ-012 CHECK DATE: 04/19/2022		04/01/2022	041922	341984	1,237.80	05/01/2022	INV	PD	Ped/Bike Plan-Feb/Mar
105466 COMPUTER INTEGRATION TECHNOLOGIES INC									
325530 CHECK DATE: 04/19/2022		03/31/2022	041922	341985	94.50	04/30/2022	INV	PD	IT VENDOR SUPPORT
110464 COOPER, SARA									
10004336 CHECK DATE: 04/19/2022		04/12/2022	041922	341986	3.71	05/12/2022	INV	PD	METER DEPOSIT REFUND-890

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
106301 CORE AND MAIN LP									
Q650719		04/07/2022	041922	341987	380.00	05/07/2022	INV	PD	CONDUCTIVITY STRAPS
CHECK DATE: 04/19/2022									
110391 CUMMINS INC									
E4-7288		03/30/2022	041922	341988	21,270.78	04/30/2022	INV	PD	#116 MOTOR REPAIR
CHECK DATE: 04/19/2022									
100485 CUZZYS OF CHASKA INC									
1467		04/01/2022	041922	341989	1,390.00	04/13/2022	INV	PD	Wellness Kickoff Lunch 4-
CHECK DATE: 04/19/2022									
105629 DICKS SANITATION SERVICE INC									
DT0004551087		03/31/2022	041922	341990	831.54	04/30/2022	INV	PD	MSB
CHECK DATE: 04/19/2022									
DT0004551088		03/31/2022	041922	341990	178.32	04/30/2022	INV	PD	FIRE STATION
CHECK DATE: 04/19/2022									
DT0004551089		03/31/2022	041922	341990	590.46	04/30/2022	INV	PD	CITY HALL
CHECK DATE: 04/19/2022									
DT0004551090		03/31/2022	041922	341990	169.44	04/30/2022	INV	PD	VETERAN'S PARK
CHECK DATE: 04/19/2022									
					1,769.76				
110104 RALNY FALLS VENTURES LLC									
210		03/31/2022	041922	341991	1,634.25	04/30/2022	INV	PD	FF GEAR INSPECTION, REPAI
CHECK DATE: 04/19/2022									
215		03/31/2022	041922	341991	1,702.00	04/30/2022	INV	PD	FF GEAR INSPECTION, REPAI
CHECK DATE: 04/19/2022									
221		04/07/2022	041922	341991	1,056.00	05/07/2022	INV	PD	FF GEAR-DECON, INSPECTION
CHECK DATE: 04/19/2022									
					4,392.25				
102657 ENERGY MANAGEMENT SOLUTIONS INC									
10404		04/01/2022	041922	341992	7,327.00	05/06/2022	INV	PD	APR RETAINER FEE
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
100619 ESS BROTHERS & SONS INC									
CC1310		03/15/2022	041922	341993	1,949.20	04/15/2022	INV	PD	STORM SEWER CATCH BASIN G
CHECK DATE: 04/19/2022									
110158 BDH2 MARSHALL LLC									
1747552		02/25/2022	041922	341994	199.14	04/04/2022	INV	PD	METER SCHOOL LODGING-WICK
CHECK DATE: 04/19/2022									
110169 FELHABER LARSON FENLON AND VOGT PA									
686558		04/05/2022	041922	341995	16,466.60	05/08/2022	INV	PD	TH 41 Project-Property Ac
CHECK DATE: 04/19/2022									
100653 FERGUSON ENTERPRISES INC									
9005782		03/29/2022	041922	341996	25.79	04/29/2022	INV	PD	NEW TANK LID FOR TOILET
CHECK DATE: 04/19/2022									
9200728		03/31/2022	041922	341996	162.90	04/30/2022	INV	PD	FITTING FOR IRRIGATION AT
CHECK DATE: 04/19/2022									
					188.69				
100655 FERRELLGAS 7780961									
1119003440		03/23/2022	041922	341997	53.67	04/23/2022	INV	PD	PROPANE
CHECK DATE: 04/19/2022									
106319 CHAD JEREMY FIGG									
Dec 2021		04/07/2022	041922	341998	376.56	05/07/2022	INV	PD	Dec Tae Kwon Do
CHECK DATE: 04/19/2022									
Oct 2021-2		04/07/2022	041922	341998	42.36	05/07/2022	INV	PD	TKD additional enrollment
CHECK DATE: 04/19/2022									
Sep 2021-2		04/07/2022	041922	341998	69.36	05/07/2022	INV	PD	TKD additional enrollment
CHECK DATE: 04/19/2022									
					488.28				
109941 BRIDGETOWER OPCO LLC									
745367870		04/07/2022	041922	341999	220.15	05/07/2022	INV	PD	2022 Dt Recon Bid Notice
CHECK DATE: 04/19/2022									
745367871		04/07/2022	041922	341999	116.20	05/07/2022	INV	PD	The Loop Clubhouse Bldg B
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
745367872		04/07/2022	041922	341999	121.15	05/07/2022	INV	PD	The Loop Maint Bldg Bid N
CHECK DATE: 04/19/2022									
					457.50				
100680 FORCE AMERICA INC									
001-1624718		03/28/2022	041922	342000	219.50	04/28/2022	INV	PD	#143 TRACTOR BACKHOE
CHECK DATE: 04/19/2022									
110455 GATCHELL GRANT RESOURCES LLC									
1957		01/10/2022	041922	342001	950.00	05/05/2022	INV	PD	FEMA GRANT WRITING SERVIC
CHECK DATE: 04/19/2022									
100707 GEAR FOR SPORTS									
41904115		03/30/2022	041922	342002	969.88	04/30/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
100717 GENERAL PARTS LLC									
6331035		03/31/2022	041922	342003	277.45	04/30/2022	INV	PD	OAK 19 REFRIGERATION REPA
CHECK DATE: 04/19/2022									
106901 INFLECTION.COM INC									
CIT02939045		03/31/2022	041922	342004	123.00	04/30/2022	INV	PD	MAR BACKGROUND CHECKS
CHECK DATE: 04/19/2022									
101463 GOPHER STATE ONE CALL									
2030280		03/31/2022	041922	342005	263.25	04/30/2022	INV	PD	MARCH LOCATES
CHECK DATE: 04/19/2022									
110452 GREEN CARD VOICES									
81		03/31/2022	041922	342006	1,000.00	04/05/2022	INV	PD	HRC Green Card Voices exh
CHECK DATE: 04/19/2022									
110471 GUPTA, MUKUL									
35925		04/12/2022	041922	342007	5.12	05/12/2022	INV	PD	METER DEPOSIT REFUND-3326
CHECK DATE: 04/19/2022									
108947 H & J ELECTRIC LLC									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
58369		04/05/2022	041922	342008	513.52	05/05/2022	INV	PD	WO# 1010 CITYWIDE OH TO U
CHECK DATE: 04/19/2022									
100821 HEALTHPARTNERS INC									
111950351		04/06/2022	041222	341927	7,200.31	04/30/2022	INV	PD	MAY EMP INS PREM-DENTAL
CHECK DATE: 04/12/2022									
110461 HEARTLAND BUSINESS SYSTEMS LLC									
511157-H		04/11/2022	041922	342009	8,400.00	05/11/2022	INV	PD	PHONE SYS SUPPORT/NETWORK
CHECK DATE: 04/19/2022									
100841 HERMANS LANDSCAPE SUPPLIES									
50332/1		04/05/2022	041922	342010	20.00	05/05/2022	INV	PD	LOG DISPOSAL PED TRAIL OF
CHECK DATE: 04/19/2022									
110458 HERTZBERG, KEVIN									
615020540-2022-1		04/01/2022	041922	342011	1,900.00	05/08/2022	INV	PD	MAR REBATE-SOLAR PANEL
CHECK DATE: 04/19/2022									
100848 HIGH TECH CLEANING INC									
17575		03/28/2022	041922	342012	376.00	04/28/2022	INV	PD	MSB CARPET CLEANING
CHECK DATE: 04/19/2022									
17579		04/01/2022	041922	342012	3,159.12	05/01/2022	INV	PD	PARK DEPT CLEANING SUPPLI
CHECK DATE: 04/19/2022									
17593		04/01/2022	041922	342012	3,092.25	05/01/2022	INV	PD	CITY HALL
CHECK DATE: 04/19/2022									
17594		04/01/2022	041922	342012	485.16	05/01/2022	INV	PD	COMMUNITY ROOM - CLOVER R
CHECK DATE: 04/19/2022									
17595		04/01/2022	041922	342012	1,495.91	05/01/2022	INV	PD	FIRE STATION
CHECK DATE: 04/19/2022									
17596		04/01/2022	041922	342012	1,140.83	05/01/2022	INV	PD	HISTORY CENTER
CHECK DATE: 04/19/2022									
17597		04/01/2022	041922	342012	202.15	05/01/2022	INV	PD	IT DEPARTMENT
CHECK DATE: 04/19/2022									
17598		04/01/2022	041922	342012	1,971.55	05/01/2022	INV	PD	MSB
CHECK DATE: 04/19/2022									
17599		04/01/2022	041922	342012	161.72	05/01/2022	INV	PD	STANTEC BUILDING

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 04/19/2022									
17600		04/01/2022	041922	342012	625.00	05/01/2022	INV	PD	WTP
CHECK DATE: 04/19/2022									
17642		04/05/2022	041922	342012	981.34	05/05/2022	INV	PD	CITY HALL CLEANING SUPPLI
CHECK DATE: 04/19/2022									
17643		04/05/2022	041922	342012	658.83	05/05/2022	INV	PD	MSB CLEANING SUPPLIES
CHECK DATE: 04/19/2022									
					14,349.86				
110456 HOMEWORKS									
P 22-234		03/30/2022	041922	342013	66.45	04/30/2022	INV	PD	RFD PLUMBING PERMIT NOT I
CHECK DATE: 04/19/2022									
100878 HUEBSCH									
84176/MAR2022		03/31/2022	041922	342014	1,222.21	04/10/2022	INV	PD	MAR RUG/MAT SVC
CHECK DATE: 04/19/2022									
100879 PRAIRIE TECHNOLOGIES INC OF MN									
220256		03/23/2022	041922	342015	797.50	04/23/2022	INV	PD	Rink 2 Automation Repair
CHECK DATE: 04/19/2022									
110465 HUMPHREY, ALISSA									
31847		04/12/2022	041922	342016	156.61	05/12/2022	INV	PD	METER DEPOSIT REFUND-545
CHECK DATE: 04/19/2022									
108162 HYDRO-DESIGNS INC									
0066206-IN		03/31/2022	041922	342017	680.96	04/30/2022	INV	PD	RPZ TESTING MGT MAR 2022
CHECK DATE: 04/19/2022									
100889 INTERNATIONAL CITY MGMT ASSN RETIREMENT CORP									
2022/0408-ICMA		04/08/2022	041222	341928	5,857.89	04/08/2022	INV	PD	040822 Payroll 457 & Roth
CHECK DATE: 04/12/2022									
100919 INTEREUM INC									
186337		03/28/2022	041922	342018	911.46	04/27/2022	INV	PD	CHAIR FOR WTP
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
110460 JOHNSON, JIM AND CORAL									
365065039-2022-1		03/31/2022	041922	342019	350.00	05/08/2022	INV	PD	MAR REBATE-RESIDENTIAL LE
CHECK DATE: 04/19/2022									
110475 JOHNSON, JUSTIN									
36528		04/12/2022	041922	342020	71.04	05/12/2022	INV	PD	METER DEPOSIT REFUND-2915
CHECK DATE: 04/19/2022									
108948 AUDRANN INC									
1362524		04/08/2022	041922	342021	7,909.80	05/23/2022	INV	PD	BLUFF CRK SUB AC UNITS FO
CHECK DATE: 04/19/2022									
1362527		03/30/2022	041922	342021	118.82	05/14/2022	INV	PD	COPPER FLARING TOOL AND A
CHECK DATE: 04/19/2022									
					8,028.62				
100972 JT SERVICES OF MINNESOTA									
JT22-094-08	220046	04/04/2022	041922	342022	3,313.13	05/04/2022	INV	PD	5 ST LT STD 23' GRN FBRGL
CHECK DATE: 04/19/2022									
JT22-094-09	220045	04/04/2022	041922	342022	7,951.50	05/04/2022	INV	PD	12 ST LT STD 23' GREEN FI
CHECK DATE: 04/19/2022									
JT22-094-10	220047	04/04/2022	041922	342022	8,614.13	05/04/2022	INV	PD	13 ST LT STD 23' GRN FBRG
CHECK DATE: 04/19/2022									
					19,878.76				
110451 KAPOW									
2011897.002		04/01/2022	041922	342023	757.38	05/01/2022	INV	PD	REFUND BALANCE AT CHASKA
CHECK DATE: 04/19/2022									
110470 KARELS, MATTHEW									
35760		04/12/2022	041922	342024	74.00	05/12/2022	INV	PD	METER DEPOSIT REFUND-2910
CHECK DATE: 04/19/2022									
110349 KILLMER ELECTRIC CO INC									
193805234-3		03/25/2022	041922	342025	5,909.00	04/25/2022	INV	PD	OAK ST STORM WATER PUMP S
CHECK DATE: 04/19/2022									
101018 KRISS PREMIUM PRODUCTS INC									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
177477		03/24/2022	041922	342026	415.75	04/24/2022	INV	PD	Arena Condensor Chemicals
CHECK DATE: 04/19/2022									
110477 KUNZE, WENDY									
10002675		04/12/2022	041922	342027	153.98	05/12/2022	INV	PD	CREDIT BALANCE REFUND-122
CHECK DATE: 04/19/2022									
101043 LANO EQUIPMENT INC									
01-899666		03/23/2022	041922	342028	403.70	04/23/2022	INV	PD	FILTERS FOR T450
CHECK DATE: 04/19/2022									
01-901067		03/30/2022	041922	342028	29.99	04/30/2022	INV	PD	CHAINSAW CHAIN
CHECK DATE: 04/19/2022									
01-902011		04/04/2022	041922	342028	609.99	05/04/2022	INV	PD	CHAINSAW-TC
CHECK DATE: 04/19/2022									
01-902142		04/04/2022	041922	342028	144.80	05/04/2022	INV	PD	CHAIN FOR CHAINSAW/CHAIN
CHECK DATE: 04/19/2022									
					1,188.48				
101050 LAW ENFORCEMENT LABOR SERVICES INC									
Apr-22		04/08/2022	041222	341929	1,560.00	04/08/2022	INV	PD	Apr-22 Police Union Dues
CHECK DATE: 04/12/2022									
101056 LEAGUE OF MINNESOTA CITIES									
10003277-APR22		04/04/2022	041922	342029	179,100.00	05/01/2022	INV	PD	PROPERTY/CASUALTY INSURAN
CHECK DATE: 04/19/2022									
103873 ANNE LUMBY									
2061		03/24/2022	041922	342030	5,508.66	04/24/2022	INV	PD	AED'S FOR TRUCKS
CHECK DATE: 04/19/2022									
2062		04/05/2022	041922	342030	1,000.00	05/05/2022	INV	PD	AED TRAINING
CHECK DATE: 04/19/2022									
					6,508.66				
110118 LOCKRIDGE GRINDAL NAUEN PLLP									
113831		04/01/2022	041922	342031	3,333.33	04/30/2022	INV	PD	Apr Lobbyist for City Squ
CHECK DATE: 04/19/2022									
103842 LOCAL GOVERNMENT INFORMATION SYSTEMS									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
51941		04/01/2022	041922	342032	804.00	05/01/2022	INV	PD	APR SA SUPPORT
CHECK DATE: 04/19/2022									
105710 MACQUEEN EMERGENCY GROUP									
W04199		03/31/2022	041922	342033	1,754.09	04/30/2022	INV	PD	E11 TRUCK REPAIR
CHECK DATE: 04/19/2022									
101124 MACQUEEN EQUIPMENT									
P38615		11/22/2021	041922	342034	150.28	05/13/2022	INV	PD	#921 SEWER HOSES
CHECK DATE: 04/19/2022									
103449 MADDEN GALANTER HANSEN LLP									
99767		04/08/2022	041922	342035	494.41	05/11/2022	INV	PD	MAR LEGAL
CHECK DATE: 04/19/2022									
101177 METROPOLITAN AREA MANAGEMENT ASSOC									
1141		03/21/2022	041922	342036	25.00	04/06/2022	INV	PD	March 24 Luncheon-Podhrad
CHECK DATE: 04/19/2022									
103176 MANSFIELD OIL COMPANY									
23145839		04/04/2022	041922	342037	8,420.96	05/04/2022	INV	PD	DYED DIESEL
CHECK DATE: 04/19/2022									
23145840		04/04/2022	041922	342037	14,596.15	05/04/2022	INV	PD	UNLEADED FUEL
CHECK DATE: 04/19/2022									
23145841		04/04/2022	041922	342037	3,752.11	05/04/2022	INV	PD	DYED DIESEL
CHECK DATE: 04/19/2022									
					26,769.22				
107796 DAWN MARIE MARTIN									
Feb 2022		03/25/2022	041922	342038	93.60	04/25/2022	INV	PD	Feb Zumba
CHECK DATE: 04/19/2022									
Mar 2022		03/25/2022	041922	342038	46.80	04/25/2022	INV	PD	Mar Zumba
CHECK DATE: 04/19/2022									
					140.40				
101172 MERCHANT JOB TRAINING & SAFETY INC									
6757		03/30/2022	041922	342039	550.00	04/29/2022	INV	PD	JOB TRAINING NATE EBERT B

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 04/19/2022									
101176 METRO ALARM CONTRACTORS INC									
046660		04/01/2022	041922	342040	420.00	05/01/2022	INV	PD	DMP PHONE APP MAY 2022-AP
CHECK DATE: 04/19/2022									
101183 METROPOLITAN COUNCIL									
MAR 2022 SAC		03/31/2022	041922	342041	115,627.05	04/30/2022	INV	PD	MAR SAC CHARGES
CHECK DATE: 04/19/2022									
101182 METROPOLITAN COUNCIL									
0001137725		04/05/2022	041922	342042	236,023.00	05/01/2022	INV	PD	MAY SEWER SERVICES FOR ME
CHECK DATE: 04/19/2022									
101187 METRO SALES INC									
INV2019929		04/05/2022	041922	342043	197.00	05/05/2022	INV	PD	PD Copier Lease
CHECK DATE: 04/19/2022									
102688 MINNESOTA STATE COLLEGES AND UNIVERSITIES									
49973		03/29/2022	041922	342044	407.00	04/29/2022	INV	PD	4 Hr Drivers Safety Chask
CHECK DATE: 04/19/2022									
101196 MID COUNTY COOP #122622									
54157		03/28/2022	041922	342045	720.56	04/30/2022	INV	PD	178 GLS GAS-TC
CHECK DATE: 04/19/2022									
54158		03/28/2022	041922	342045	607.66	04/30/2022	INV	PD	127 GLS DIESEL-TC
CHECK DATE: 04/19/2022									
					1,328.22				
101199 MID COUNTY COOP #122665									
10283		03/08/2022	041922	342046	66.64	04/08/2022	INV	PD	#228 REAR TIRE REPAIR BAL
CHECK DATE: 04/19/2022									
101217 MINNESOTA CHILD SUPPORT PMT CTR									
PR040822001510208001		04/08/2022	041222	341930	184.58	04/08/2022	INV	PD	040822 Payroll Child Supp
CHECK DATE: 04/12/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
101337 MINNESOTA DEPARTMENT OF HEALTH									
99593		03/30/2022	041922	342047	23.00	04/30/2022	INV	PD	E. MENTH CLASS C WATER SU
CHECK DATE: 04/19/2022									
99723		04/11/2022	041922	342048	23.00	05/11/2022	INV	PD	S. LATZKE CLASS B LICENSE
CHECK DATE: 04/19/2022									
					46.00				
101216 MINNESOTA FIRE SERVICE CERTIFICATION BOARD									
9822		03/30/2022	041922	342049	120.00	04/30/2022	INV	PD	FF EXAM FEE
CHECK DATE: 04/19/2022									
101247 MINNESOTA MUNICIPAL UTILITIES ASSN									
59206		04/01/2022	041922	342050	1,350.00	05/01/2022	INV	PD	JOB TRAINING AND SAFETY P
CHECK DATE: 04/19/2022									
101303 MN TEAMSTER PUBLIC AND LAW ENFORCEMENT									
Apr-22		04/08/2022	041222	341931	4,430.00	04/08/2022	INV	PD	Apr-22 Local #320 Union D
CHECK DATE: 04/12/2022									
101274 MINNESOTA TRUCKING ASSOCIATION									
74849		02/11/2022	041922	342051	65.55	04/04/2022	INV	PD	DOT INSPECTION BOOKS
CHECK DATE: 04/19/2022									
101276 MINNESOTA VALLEY ELECTRIC COOPERATIVE									
107050711/MAR22		03/28/2022	041422	341936	804.87	04/22/2022	INV	PD	MAR ST LITES-TOWN COURSE
CHECK DATE: 04/14/2022									
121770311/MAR22		03/28/2022	041422	341936	24.04	04/22/2022	INV	PD	MAR 4255 CREEK RD
CHECK DATE: 04/14/2022									
778377500/MAR22		04/07/2022	041422	341936	49.32	05/02/2022	INV	PD	MAR 12500 COUNTY RD 11 SI
CHECK DATE: 04/14/2022									
778377800/MAR22		04/07/2022	041422	341936	34.45	05/02/2022	INV	PD	MAR 4250 ENGLER BLVD SIGN
CHECK DATE: 04/14/2022									
778377900/MAR22		04/07/2022	041422	341936	33.74	05/02/2022	INV	PD	MAR 4100 ENGLER BLVD SIGN
CHECK DATE: 04/14/2022									
781385500/MAR22		04/07/2022	041422	341936	10.48	05/02/2022	INV	PD	MAR 4463 CTY RD 44
CHECK DATE: 04/14/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
					956.90				
101341 MINNESOTA DEPT OF LABOR & INDUSTRY									
MARCH0190352022		03/31/2022	041922	342052	7,012.28	04/30/2022	INV	PD	MAR PERMIT SURCHARGES
CHECK DATE: 04/19/2022									
105853 MOR GOLF AND UTILITY INC									
31535		04/06/2022	041922	342053	93.92	06/06/2022	INV	PD	CART PARTS
CHECK DATE: 04/19/2022									
31604		04/08/2022	041922	342053	568.51	05/08/2022	INV	PD	CART BATTERY MAINTENANCE
CHECK DATE: 04/19/2022									
					662.43				
103236 MRA-THE MANAGEMENT ASSOCIATION									
00408884		03/04/2022	041922	342054	92.50	04/24/2022	INV	PD	FEB COMPENSATION SERVICES
CHECK DATE: 04/19/2022									
101356 MTI DISTRIBUTING INC #31380									
1339196-00		04/04/2022	041922	342055	1,719.62	05/04/2022	INV	PD	PARK MOWER BLADES
CHECK DATE: 04/19/2022									
101354 MTI DISTRIBUTING INC #700767									
1331699-00		04/06/2022	041922	342056	54,281.81	05/06/2022	INV	PD	REEL GRINDER-TC
CHECK DATE: 04/19/2022									
1338473-00		04/05/2022	041922	342056	-1,068.75	05/31/2022	CRM	PD	CREDIT FOR OLD GRINDER
CHECK DATE: 04/19/2022									
1338707-00		03/30/2022	041922	342056	43.72	04/30/2022	INV	PD	IGNITION SWITCH
CHECK DATE: 04/19/2022									
					53,256.78				
101357 MUELLER SYSTEMS LLC									
65458491		04/08/2022	041922	342057	1,036.02	05/08/2022	INV	PD	HANDHELD MAINTENANCE CONT
CHECK DATE: 04/19/2022									
106657 MUNICIPAL ASSET MANAGEMENT INC									
01132022M4		03/24/2022	040522-2	341921	4,983.31	04/13/2022	INV	PD	CCC FITNESS EQUIP LEASE P
CHECK DATE: 04/05/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
101365 STAR GROUP LLC									
4472/MAR2022		03/31/2022	040722	341922	4,888.80	04/10/2022	INV	PD	MAR PARTS & SUPPLIES
CHECK DATE: 04/07/2022									
106198 NAVIANT INC									
0144868-IN		04/02/2022	041422	341937	3,272.00	04/22/2022	INV	PD	MAR ONBASE HOSTING FEE
CHECK DATE: 04/14/2022									
105875 NETWORKFLEET INC									
OSV000002735596		04/01/2022	041422	341938	259.04	05/01/2022	INV	PD	GPS
CHECK DATE: 04/14/2022									
101396 NEW PIG CORPORATION									
23616410-00		04/08/2022	041922	342058	4,894.39	05/08/2022	INV	PD	OIL SKIMMER BROOMS FOR OI
CHECK DATE: 04/19/2022									
102654 NORTH AMERICAN SAFETY INC									
INV63842		03/28/2022	041922	342059	543.08	04/28/2022	INV	PD	SAFETY HARNESSES FOR PARK
CHECK DATE: 04/19/2022									
INV63944		03/30/2022	041922	342059	157.25	04/30/2022	INV	PD	PPE SAFETY GLASSES AND EA
CHECK DATE: 04/19/2022									
INV63988		03/31/2022	041922	342059	143.98	04/30/2022	INV	PD	SAFETY CLOTHING-SHARED
CHECK DATE: 04/19/2022									
INV64037		04/01/2022	041922	342059	929.90	05/01/2022	INV	PD	SEASONAL CITY ISSUED SAFT
CHECK DATE: 04/19/2022									
INV64187		04/07/2022	041922	342059	1,187.19	05/07/2022	INV	PD	SAFETY SHIRTS - STREETS D
CHECK DATE: 04/19/2022									
					2,961.40				
101470 O'REILLY AUTOMOTIVE STORES INC									
556275/MAR2022		03/28/2022	041222	341932	1,319.81	04/20/2022	INV	PD	MAR PARTS & SUPPLIES
CHECK DATE: 04/12/2022									
101445 OFFICE DEPOT									
232322524001-1		03/18/2022	041922	342060	37.05	04/23/2022	INV	PD	Phone Log Book for Buildi
CHECK DATE: 04/19/2022									
232322524001-2		03/18/2022	041922	342060	24.20	04/23/2022	INV	PD	Small bowls for the break

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 04/19/2022									
232322524001-3		03/18/2022	041922	342060	28.11	04/23/2022	INV	PD	Sticky lined post it note
CHECK DATE: 04/19/2022									
232334120001		03/18/2022	041922	342060	70.97	04/23/2022	INV	PD	Coffee cups and coffee
CHECK DATE: 04/19/2022									
235570918001-1		03/23/2022	041922	342060	73.98	04/23/2022	INV	PD	Copy paper for the workro
CHECK DATE: 04/19/2022									
235570918001-2		03/23/2022	041922	342060	19.27	04/23/2022	INV	PD	Labels for the workroom
CHECK DATE: 04/19/2022									
235571911001		03/23/2022	041922	342060	13.76	04/23/2022	INV	PD	Water cups for breakroom
CHECK DATE: 04/19/2022									
236186762001-1		03/28/2022	041922	342060	57.69	04/30/2022	INV	PD	Expanding Pocket Files fo
CHECK DATE: 04/19/2022									
236186762001-2		03/28/2022	041922	342060	18.09	04/30/2022	INV	PD	Magic Tape for workroom
CHECK DATE: 04/19/2022									
236338822001		03/25/2022	041922	342060	131.59	04/30/2022	INV	PD	COPY PAPER-MSB
CHECK DATE: 04/19/2022									
236761291001-1		03/30/2022	041922	342060	41.75	04/30/2022	INV	PD	2 packs of batteries for
CHECK DATE: 04/19/2022									
236761291001-2		03/30/2022	041922	342060	8.30	04/30/2022	INV	PD	Dozen pens for workroom
CHECK DATE: 04/19/2022									
237425638001		04/01/2022	041922	342061	20.67	05/06/2022	INV	PD	Facial Tissue
CHECK DATE: 04/19/2022									
					545.43				
110453 OLANDA, HILDA									
2011905.002		04/05/2022	041922	342062	500.00	05/05/2022	INV	PD	RFD DEPOSIT-QUINCEANERA
CHECK DATE: 04/19/2022						PAYEE: OLANDA, HILDA			
104149 OLSEN TOOL & PLASTICS INC									
260406600-2022-1		03/31/2022	041922	342063	928.00	05/08/2022	INV	PD	MAR REBATE-BUSINESS LIGHT
CHECK DATE: 04/19/2022									
110450 PERFECTLY UNIQUE EVENTS									
2011898.002		04/01/2022	041922	342064	300.00	05/01/2022	INV	PD	REFUND BALANCE AT CHASKA
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
101557 POWER SYSTEM ENGINEERING INC									
9041109 CHECK DATE: 04/19/2022		04/11/2022	041922	342065	13,597.49	05/11/2022	INV	PD	MRS RELAY UPGRADE - ENG F
9041110 CHECK DATE: 04/19/2022		04/11/2022	041922	342065	13,724.50	05/11/2022	INV	PD	BLUFF CRK SUB RELAY UPGRA
					27,321.99				
110479 PRAKASH, SANDHYA									
10015326 CHECK DATE: 04/19/2022		04/12/2022	041922	342066	214.47	05/12/2022	INV	PD	CREDIT BALANCE REFUND-101
101571 PREMIUM WATERS INC									
318707095 CHECK DATE: 04/19/2022		03/31/2022	041922	342067	61.85	04/30/2022	INV	PD	Water cooler-PD Qtrly
109690 PRG AMERICAS LLC									
IV2022-42608 CHECK DATE: 04/19/2022		03/29/2022	041922	342068	754.85	04/28/2022	INV	PD	RESALE
IV2022-42956 CHECK DATE: 04/19/2022		04/11/2022	041922	342068	851.85	05/11/2022	INV	PD	RESALE
					1,606.70				
101588 PUKKA INC									
BU02237-IN CHECK DATE: 04/19/2022		04/06/2022	041922	342069	1,650.24	05/06/2022	INV	PD	RESALE
103055 QUALITY PROPANE INC									
213990 CHECK DATE: 04/19/2022		03/28/2022	041922	342070	43.47	04/27/2022	INV	PD	Zamboni LP Gas
110468 QUAST, JANET									
35129 CHECK DATE: 04/19/2022		04/12/2022	041922	342071	46.32	05/12/2022	INV	PD	METER DEPOSIT REFUND-1566
107855 STAPLES INC									
23613588-1 CHECK DATE: 04/14/2022		03/08/2022	041422	341939	37.03	04/07/2022	INV	PD	White labels for the work

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
23613588-2		03/08/2022	041422	341939	58.12	04/07/2022	INV	PD	View Binders for Matt Cla
CHECK DATE: 04/14/2022									
23862600		03/17/2022	041422	341940	121.12	04/16/2022	INV	PD	OFFICE SUPPLIES
CHECK DATE: 04/14/2022									
23923041		03/21/2022	041422	341940	79.98	04/20/2022	INV	PD	OFFICE SUPPLIES
CHECK DATE: 04/14/2022									
24023956		03/24/2022	041422	341939	13.77	04/23/2022	INV	PD	Lysol Disinfectant Wipes
CHECK DATE: 04/14/2022									
24053713		03/25/2022	041422	341940	3.98	04/24/2022	INV	PD	PENCIL LEAD REFILLS
CHECK DATE: 04/14/2022									
24181413		03/31/2022	041422	341940	63.27	04/30/2022	INV	PD	OFFICE SUPPLIES
CHECK DATE: 04/14/2022									
					377.27				
101684 R & R SPECIALTIES OF WISCONSIN INC									
0075510-IN		03/31/2022	041922	342072	65.00	04/30/2022	INV	PD	Zamboni Blade Sharpening
CHECK DATE: 04/19/2022									
101616 RDO EQUIPMENT COMPANY									
P8648570		04/04/2022	041922	342073	334.16	05/04/2022	INV	PD	#710 VACTOR PARTS
CHECK DATE: 04/19/2022									
W6051101		03/31/2022	041922	342073	4,913.02	04/30/2022	INV	PD	#143 STREET - CONCRETE BR
CHECK DATE: 04/19/2022									
					5,247.18				
101631 REINDERS INC									
1901770-00		09/30/2021	041922	342074	-7,455.89	12/31/2021	CRM	PD	SYNGENTA GREENTRUST REBAT
CHECK DATE: 04/19/2022									
3176099-00		03/24/2022	041922	342074	12,598.43	05/31/2022	INV	PD	FERTILIZER-TC
CHECK DATE: 04/19/2022									
3177352-00		03/24/2022	041922	342074	7,488.84	04/23/2022	INV	PD	FERTILIZER & CHEMICALS-TC
CHECK DATE: 04/19/2022									
					12,631.38				
101638 RURAL ELECTRIC SUPPLY COOPERATIVE									
852782-00		04/05/2022	041922	342075	518.10	05/05/2022	INV	PD	RATCHING ALLEN WRENCHES
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
101703 SALVATION ARMY									
MAR/22 HS CHECK DATE: 04/19/2022		04/09/2022	041922	342076	119.00	05/09/2022	INV	PD	MAR HEAT SHARE CONTRIBUTI
101738 SCHILLING SUPPLY COMPANY									
862934-00 CHECK DATE: 04/19/2022		03/01/2022	041922	342077	2,135.41	05/08/2022	INV	PD	Cleaning Supplies-CCC
101914 SOUTHWEST METRO CHAMBER OF COMMERCE									
323842 CHECK DATE: 04/19/2022		01/12/2022	041922	342078	6,000.00	04/07/2022	INV	PD	Downtown Chaska Farmer's
101828 SOUTHWEST NEWS MEDIA									
2156256 CHECK DATE: 04/19/2022		03/17/2022	041922	342079	132.30	04/25/2022	INV	PD	2022 DT ST RECON HEARING
2156257 CHECK DATE: 04/19/2022		03/17/2022	041922	342079	102.90	04/25/2022	INV	PD	2022 OVERLAY BIDS
2156410 CHECK DATE: 04/19/2022		03/24/2022	041922	342079	62.48	04/25/2022	INV	PD	CREEK RD TRUNK SEWER BIDS
2156621 CHECK DATE: 04/19/2022		03/26/2022	041922	342080	219.00	04/25/2022	INV	PD	PUBLIC WORKS SEASONAL JOB
2156662 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	194.78	04/25/2022	INV	PD	ZONING ORD-CHASKA CLUB WE
2156663 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	227.85	04/25/2022	INV	PD	ZONING ORD-ENSCONCED WOOD
2156664 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	216.83	04/25/2022	INV	PD	RIVERTOWN HEIGHTS ZONING
2156665 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	396.90	04/25/2022	INV	PD	WARD BOUNDARIES ORD AMEND
2156666 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	161.70	04/25/2022	INV	PD	2022 DT ST RECON ASSESSME
2156667 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	58.80	04/25/2022	INV	PD	120 UNIT APT BLDG REZONE/
2156668 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	58.80	04/25/2022	INV	PD	175 UNIT APT BLDG PLAN/PL
2156669 CHECK DATE: 04/19/2022		03/31/2022	041922	342079	58.80	04/25/2022	INV	PD	MEMORY CARE BLDG PLAT/REZ

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
2156670		03/31/2022	041922	342079	58.80	04/25/2022	INV	PD	DR HORTON HOMES PLAT/REZO
CHECK DATE: 04/19/2022									
					1,949.94				
110466 STANFORD, ALEC									
34425		04/12/2022	041922	342081	66.69	05/12/2022	INV	PD	METER DEPOSIT REFUND-3000
CHECK DATE: 04/19/2022									
101850 STANTEC CONSULTING SERVICES INC									
1905601		03/30/2022	041922	342082	2,905.00	04/30/2022	INV	PD	FEB-GENERAL ENGINEERING
CHECK DATE: 04/19/2022									
1905602		03/30/2022	041922	342082	3,517.50	04/30/2022	INV	PD	FEB-RECORD PLAN/BASE MAP
CHECK DATE: 04/19/2022									
1905603		03/30/2022	041922	342082	11,869.00	04/30/2022	INV	PD	FEB-SW COMMUNITY PARK
CHECK DATE: 04/19/2022									
1905604		03/30/2022	041922	342082	11,444.75	04/30/2022	INV	PD	FEB-CREEK RD TRUNK SWR PH
CHECK DATE: 04/19/2022									
1905606		03/30/2022	041922	342082	1,842.75	04/30/2022	INV	PD	FEB-NE COLLECTOR IN SW AR
CHECK DATE: 04/19/2022									
1905607		03/30/2022	041922	342082	313.00	04/30/2022	INV	PD	FEB-BAVARIA RD TURN LNS @
CHECK DATE: 04/19/2022									
1905608		03/30/2022	041922	342082	862.50	04/30/2022	INV	PD	FEB-E 6TH ST L4965 REPLAC
CHECK DATE: 04/19/2022									
1905609		03/30/2022	041922	342082	75.00	04/30/2022	INV	PD	FEB-ENGINEERING DEPT ASSI
CHECK DATE: 04/19/2022									
1905610		03/30/2022	041922	342082	626.00	04/30/2022	INV	PD	FEB-2020 DT RECONSTRUCTIO
CHECK DATE: 04/19/2022									
1905612		03/30/2022	041922	342082	27,968.05	04/30/2022	INV	PD	FEB-PAR 30 GOLF COURSE
CHECK DATE: 04/19/2022									
1905613		03/30/2022	041922	342082	7,606.00	04/30/2022	INV	PD	FEB-2021 DT RECONSTRUCTIO
CHECK DATE: 04/19/2022									
1905614		03/30/2022	041922	342082	9,116.00	04/30/2022	INV	PD	FEB-WELL NOS. 4, 6 AND 8
CHECK DATE: 04/19/2022									
1905615		03/30/2022	041922	342082	2,051.50	04/30/2022	INV	PD	FEB-OAK ST PUMPING STATIO
CHECK DATE: 04/19/2022									
1905616		03/30/2022	041922	342082	8,851.25	04/30/2022	INV	PD	FEB-CREEK RD INDUSTRIAL S
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
1905617		03/30/2022	041922	342082	3,868.66	04/30/2022	INV	PD	FEB-CLOVER RIDGE DR/FREY
CHECK DATE: 04/19/2022									
1905618		03/30/2022	041922	342082	3,410.25	04/30/2022	INV	PD	FEB-SEMINARY FEN C2 RAVIN
CHECK DATE: 04/19/2022									
1905619		03/30/2022	041922	342082	21,123.00	04/30/2022	INV	PD	FEB-CHASKA NORTH WATER TR
CHECK DATE: 04/19/2022									
1905620		03/30/2022	041922	342082	23,356.65	04/30/2022	INV	PD	FEB-2022 DT RECONSTRUCTIO
CHECK DATE: 04/19/2022									
1905621		03/30/2022	041922	342082	2,335.75	04/30/2022	INV	PD	FEB-2ND & PINE PKG LOT RE
CHECK DATE: 04/19/2022									
1905622		03/30/2022	041922	342082	2,112.00	04/30/2022	INV	PD	FEB-STORMWATER REVIEW-CHA
CHECK DATE: 04/19/2022									
1905623		03/30/2022	041922	342082	192.00	04/30/2022	INV	PD	FEB-STORMWATER REVIEW-RES
CHECK DATE: 04/19/2022									
1905624		03/30/2022	041922	342082	96.00	04/30/2022	INV	PD	FEB-STORMWATER REVIEW-ENS
CHECK DATE: 04/19/2022									
1905625		03/30/2022	041922	342082	2,736.00	04/30/2022	INV	PD	FEB-STORMWATER REVIEW-RIV
CHECK DATE: 04/19/2022									
1905626		03/30/2022	041922	342082	288.00	04/30/2022	INV	PD	FEB-STORMWATER REVIEW-CLO
CHECK DATE: 04/19/2022									
1905627		03/30/2022	041922	342082	288.00	04/30/2022	INV	PD	FEB-STORMWATER REVIEW-SW
CHECK DATE: 04/19/2022									
					148,854.61				
101884 STOP PROCESSING CENTER INC									
19700		04/01/2022	041922	342083	100.44	04/30/2022	INV	PD	Online automatic payment
CHECK DATE: 04/19/2022									
101888 STREICHERS									
I1560667		04/01/2022	041922	342084	1,057.62	05/01/2022	INV	PD	Department Ammunition
CHECK DATE: 04/19/2022									
I1561950		04/08/2022	041922	342084	45.00	05/08/2022	INV	PD	Kevin Wright-PIO-shirt
CHECK DATE: 04/19/2022									
					1,102.62				
101892 STUART C IRBY CO									
S012855464.001	220049	03/28/2022	041922	342085	3,948.15	04/27/2022	INV	PD	COND UD #6 TRI,TRNSF CASE

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 04/19/2022									
S012855476.001	220050	03/28/2022	041922	342085	8,593.28	04/27/2022	INV	PD	GRD RD CO, TRN CASE GRD,
CHECK DATE: 04/19/2022									
S012855484.001	220051	03/28/2022	041922	342085	1,160.75	04/27/2022	INV	PD	GRD RD, SPLICE, TRNS GRD
CHECK DATE: 04/19/2022									
S012857957.001	220044	03/24/2022	041922	342085	2,774.16	04/23/2022	INV	PD	COND CU 6 BARE, COND CU 2
CHECK DATE: 04/19/2022									
S012878801.001		03/29/2022	041922	342085	500.10	04/28/2022	INV	PD	RUBBER BLANKET TESTING
CHECK DATE: 04/19/2022									
S012913767.001	220043	03/24/2022	041922	342085	834.00	04/23/2022	INV	PD	12 CROSSARMS 8 FT
CHECK DATE: 04/19/2022									
					17,810.44				
110481 SWOPE, EVELYNDA									
32979		04/12/2022	041922	342086	93.92	05/12/2022	INV	PD	CREDIT BALANCE REFUND-208
CHECK DATE: 04/19/2022									
110474 SZPORN, JADEN									
36331		04/12/2022	041922	342087	12.95	05/12/2022	INV	PD	METER DEPOSIT REFUND-3000
CHECK DATE: 04/19/2022									
109170 TANGEN, MIRANDA									
2011913.002		04/06/2022	041922	342088	390.00	05/06/2022	INV	PD	RFD PERSONAL TRAINING ADU
CHECK DATE: 04/19/2022					PAYEE: TANGEN, MIRANDA				
101932 TAYLOR MADE GOLF CO INC									
35733568		03/29/2022	041922	342089	426.10	05/28/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
35733591		03/29/2022	041922	342089	785.44	05/28/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
35754117		03/31/2022	041922	342089	426.07	05/30/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
35754315		03/31/2022	041922	342089	421.43	05/30/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
35764069		04/01/2022	041922	342089	-61.28	04/30/2022	CRM	PD	CREDIT FRIGHT ON RESALE I
CHECK DATE: 04/19/2022									
35786334		04/07/2022	041922	342089	371.08	06/06/2022	INV	PD	RESALE

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
CHECK DATE: 04/19/2022									
35793140		04/08/2022	041922	342089	269.06	06/07/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
					2,637.90				
101937 TDS MEDIA DIRECT INC									
89564		04/05/2022	041922	342090	245.00	05/05/2022	INV	PD	TC ADVERTISING-AMERICINN
CHECK DATE: 04/19/2022									
110467 TECKMEYER, JOETTA									
34647		04/12/2022	041922	342091	3.66	05/12/2022	INV	PD	METER DEPOSIT REFUND-110
CHECK DATE: 04/19/2022									
110392 THE SUPERLATIVE GROUP INC									
14119		04/01/2022	041922	342092	6,000.00	05/01/2022	INV	PD	Consulting for sponsorshi
CHECK DATE: 04/19/2022									
104165 THINK SMALL									
2011900.002		04/01/2022	041922	342093	98.75	05/01/2022	INV	PD	RFD FOR ROOM CANCELLATION
CHECK DATE: 04/19/2022									
104908 TIMESAVER OFF SITE SECRETARIAL INC									
M27195		03/30/2022	041922	342094	759.88	04/06/2022	INV	PD	3/7 Council, 3/9 Planning
CHECK DATE: 04/19/2022									
101966 TK ELEVATOR CORPORATION									
3006506279		04/01/2022	041922	342125	623.43	05/01/2022	INV	PD	WTP ELEVATOR 4/1/2022-6/3
CHECK DATE: 04/19/2022									
110281 TOWNSQUARE PLACE									
100126630-2022-1		03/07/2022	041922	342096	6,500.00	05/08/2022	INV	PD	MAR REBATE-CUSTOM-THERMO
CHECK DATE: 04/19/2022									
101999 TRANS UNION LLC									
03232837		03/28/2022	041922	342097	11.30	04/28/2022	INV	PD	Data Processing
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
103946 TRANSUNION RISK AND ALTERNATIVE DATA SOLUTIONS INC									
1549467-202203-1		04/01/2022	041922	342098	136.20	05/15/2022	INV	PD	Data Processing
CHECK DATE: 04/19/2022									
101994 TRAVISMATHEW LLC									
90694044		04/01/2022	041922	342099	412.00	05/01/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
90698895		04/05/2022	041922	342099	82.40	05/05/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
90702138		04/07/2022	041922	342099	1,919.00	05/07/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
90704402		04/08/2022	041922	342099	376.50	05/08/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
90704403		04/08/2022	041922	342099	82.40	05/08/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
90705296		04/09/2022	041922	342099	1,756.02	05/09/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
					4,628.32				
102009 TRI COUNTY WATER CONDITIONING INC									
99521		02/01/2022	041922	342100	405.00	04/23/2022	INV	PD	Curling Machinery Repair
CHECK DATE: 04/19/2022									
110482 TUDOR, MICHAEL									
34694		04/12/2022	041922	342101	226.56	05/12/2022	INV	PD	CREDIT BALANCE REFUND-216
CHECK DATE: 04/19/2022									
102027 TWIN CITIES & WESTERN RAILROAD CO									
M900226-IN		03/25/2022	041922	342102	373.06	04/25/2022	INV	PD	UG LINE CROSSING PIONEER
CHECK DATE: 04/19/2022									
M900238-IN		03/25/2022	041922	342102	93.75	04/25/2022	INV	PD	OH LINE CROSSING W OF LYM
CHECK DATE: 04/19/2022									
					466.81				
102028 TWIN CITY WATER CLINIC INC									
17283		03/24/2022	041922	342103	100.00	04/23/2022	INV	PD	WTP FILTER #3 (TEST 2)
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
17294		03/29/2022	041922	342103	510.00	04/28/2022	INV	PD	MARCH WATER SAMPLES
CHECK DATE: 04/19/2022									
					610.00				
110053 TX CHILD SUPPORT SDU									
PR04082200127252 83		04/08/2022	041222	341933	147.69	04/08/2022	INV	PD	040822 Payroll Child Supp
CHECK DATE: 04/12/2022									
102052 UNIQUE PAVING MATERIALS CORP									
65908		03/29/2022	041922	342104	228.15	04/29/2022	INV	PD	COLD MIX PATCHING
CHECK DATE: 04/19/2022									
66018		04/01/2022	041922	342104	209.25	05/06/2022	INV	PD	COLD MIX POTHOLE PATCHING
CHECK DATE: 04/19/2022									
					437.40				
102064 US BANK									
6469697		03/25/2022	041922	342105	1,700.00	04/25/2022	INV	PD	2020A TRUSTEE FEES
CHECK DATE: 04/19/2022									
104522 US FOODS INC									
5912990		03/28/2022	041922	342106	176.34	04/27/2022	INV	PD	FEB OAK 19 DISH MACHINE R
CHECK DATE: 04/19/2022									
107687 UNIVERSAL PROTECTION SERVICE LP									
12540565		03/31/2022	041922	342107	178.29	04/29/2022	INV	PD	Event Security
CHECK DATE: 04/19/2022									
102061 USA BLUE BOOK									
923708		03/25/2022	041922	342108	346.61	04/25/2022	INV	PD	LOCKS FOR INSTALLATIONS
CHECK DATE: 04/19/2022									
102104 VESSCO INC									
087281		04/05/2022	041922	342109	602.80	05/05/2022	INV	PD	CHEMICAL PUMP HEAD
CHECK DATE: 04/19/2022									
102109 VICTORIA REPAIR & MANUFACTURING									
10082		03/22/2022	041922	342110	10.00	04/22/2022	INV	PD	PARK MAINTENANCE ALUMINUM
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
10096		03/29/2022	041922	342110	62.00	04/29/2022	INV	PD	TUBES FOR TOWN COURSE
CHECK DATE: 04/19/2022									
					72.00				
102227 ONVOY LLC									
0009426220401		04/01/2022	041422	341941	609.05	04/25/2022	INV	PD	APR EDU CTR INTERNET/ETHE
CHECK DATE: 04/14/2022									
0009486220401		04/01/2022	041422	341941	406.03	04/25/2022	INV	PD	APR CITY HALL ETHERNET
CHECK DATE: 04/14/2022									
					1,015.08				
110463 VW GOLF INC									
61691		04/01/2022	041922	342111	516.62	05/08/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
110476 WAAG, RAQUEL									
34638		04/12/2022	041922	342112	74.17	05/12/2022	INV	PD	METER DEPOSIT REFUND-205
CHECK DATE: 04/19/2022									
102133 WAGNER PRESS & GRAPHICS									
35170		03/29/2022	041922	342113	66.00	04/18/2022	INV	PD	Business Cards Wolf/Meyer
CHECK DATE: 04/19/2022									
35171		03/29/2022	041922	342113	290.00	04/29/2022	INV	PD	S/W PERMITS & METER INSPE
CHECK DATE: 04/19/2022									
35200		04/04/2022	041922	342113	272.00	04/24/2022	INV	PD	MAR UTILITY INSERT
CHECK DATE: 04/19/2022									
35214		04/05/2022	041922	342113	482.00	04/20/2022	INV	PD	Letterhead
CHECK DATE: 04/19/2022									
					1,110.00				
110406 WARNER, BRADLEY									
10009476		03/08/2022	040722	341923	272.43	04/08/2022	INV	PD	CREDIT BALANCE REFUND-717
CHECK DATE: 04/07/2022									
102141 WASTE MANAGEMENT OF MINNESOTA INC									
7631998-1593-0		04/05/2022	041922	342114	350.26	05/05/2022	INV	PD	TOWN COURSE
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
110473 WEBER, ELIZABETH									
36202		04/12/2022	041922	342115	61.24	05/12/2022	INV	PD	METER DEPOSIT REFUND-3000
CHECK DATE: 04/19/2022									
102174 WHEELER HARDWARE COMPANY									
SPCM05786		03/23/2022	041922	342116	-984.98	04/23/2022	CRM	PD	CREDIT WELL #7
CHECK DATE: 04/19/2022									
SPI128176		03/15/2022	041922	342116	2,188.99	04/14/2022	INV	PD	WELL #7
CHECK DATE: 04/19/2022									
					1,204.01				
110194 WIDSETH SMITH NOLTING AND ASSOCIATES INC									
216405		03/30/2022	041922	342117	8,470.00	04/30/2022	INV	PD	41/61 PROJECT-BACK ENTRAN
CHECK DATE: 04/19/2022									
102192 WILSON SPORTING GOODS CO									
4537590561		04/08/2022	041922	342118	77.83	07/07/2022	INV	PD	RESALE
CHECK DATE: 04/19/2022									
102189 WM MUELLER & SONS									
274777		04/07/2022	041922	342119	49.34	05/25/2022	INV	PD	SAND FOR STOCK PILE
CHECK DATE: 04/19/2022									
110469 WOOD, BENJAMIN									
35639		04/12/2022	041922	342120	36.52	05/12/2022	INV	PD	METER DEPOSIT REFUND-1112
CHECK DATE: 04/19/2022									
110454 WRIGHT, KEVIN									
99584		01/17/2022	041922	342121	200.00	05/05/2022	INV	PD	MLK DAY BAKERY ITEMS REIM
CHECK DATE: 04/19/2022									
102220 XIGENT SOLUTIONS LLC									
83115		04/04/2022	041922	342122	6,715.00	05/09/2022	INV	PD	APR RECOVERY SVC
CHECK DATE: 04/19/2022									
83116		04/04/2022	041922	342122	13,914.69	05/09/2022	INV	PD	APR SUPPORT SVC
CHECK DATE: 04/19/2022									

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
83117		04/04/2022	041922	342122	1,778.44	05/09/2022	INV	PD	APR VULNERABILITY SVC
CHECK DATE: 04/19/2022									
					22,408.13				
105150 ZAYO GROUP HOLDINGS INC									
2022040011266		04/01/2022	040722	341924	6,448.81	04/30/2022	INV	PD	APR FIBER MAINT
CHECK DATE: 04/07/2022									
110480 ZHENG, ZHONG									
30975		04/12/2022	041922	342123	37.86	05/12/2022	INV	PD	CREDIT BALANCE REFUND-110
CHECK DATE: 04/19/2022									
102231 ZIEGLER INC									
IN000467917		03/22/2022	041922	342124	206.08	04/22/2022	INV	PD	#167 EXCAVATOR PARTS
CHECK DATE: 04/19/2022									
IN000471539		03/24/2022	041922	342124	294.27	04/24/2022	INV	PD	#167 STORM PARTS
CHECK DATE: 04/19/2022									
IN000476895		03/29/2022	041922	342124	156.78	04/29/2022	INV	PD	SHOP STOCK
CHECK DATE: 04/19/2022									
377 INVOICES					1,539,322.82				

** END OF REPORT - Generated by Michelle Robbin **

Electronic Payments

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
107490 GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY									
99615 CHECK DATE: 04/12/2022		04/08/2022	041222	3210	3,007.35	04/12/2022	DIR	PD	040822 Payroll - HCSP Con
107744 GREAT-WEST LIFE & ANNUITY INSURANCE COMPANY									
99616 CHECK DATE: 04/11/2022		04/08/2022	041122	3209	450.00	04/11/2022	DIR	PD	040822 Payroll - MNDCP Co
101756 MII LIFE INCORPORATED									
40174302 CHECK DATE: 03/31/2022		03/29/2022	033122	3201	1,507.48	03/31/2022	DIR	PD	3/31/22 FSA REIMB-HEALTHC
40182915 CHECK DATE: 04/07/2022		04/05/2022	040722	3202	177.36	04/07/2022	DIR	PD	4/5/22 FSA REIMB-HEALTHCA
40192966 CHECK DATE: 04/14/2022		04/12/2022	041422	3211	2,863.12	04/14/2022	DIR	PD	4/12/22 FSA REIMB-HEALTHC
					4,547.96				
100927 INTERNAL REVENUE SERVICE									
99609 CHECK DATE: 04/08/2022		04/08/2022	040822	3203	137,000.57	04/08/2022	DIR	PD	040822 Payroll - SS, Medi
101343 MINNESOTA DEPT OF REVENUE-PAYROLL WIRES									
99610 CHECK DATE: 04/11/2022		04/08/2022	041122	3207	27,515.65	04/11/2022	DIR	PD	040822 Payroll - MN State
101376 NATIONWIDE RETIREMENT SOLUTIONS(USCM)									
99611 CHECK DATE: 04/08/2022		04/08/2022	040822	3204	13,796.39	04/08/2022	DIR	PD	040822 Payroll - 457 Cont
106955 NATIONWIDE RETIREMENT SOLUTIONS(USCM)									
99614 CHECK DATE: 04/08/2022		04/08/2022	040822	3205	5,224.58	04/08/2022	DIR	PD	040822 Payroll - Roth Con
104668 OPTUM BANK INC									
99613 CHECK DATE: 04/08/2022		04/08/2022	040822	3206	16,591.04	04/08/2022	DIR	PD	040822 Payroll - HSA Cont

INVOICE	P.O.	INV DATE	CHECK RUN	CHECK #	INVOICE NET	DUE DATE	TYPE	STS	INVOICE DESCRIPTION
101525 PITNEY BOWES POSTAGE									
2022/0330-PB CHECK DATE: 03/31/2022		03/30/2022	033122	3200	1,200.00	03/31/2022	DIR	PD	3/30/22 REPLENISH POSTAGE
101506 PUBLIC EMPLOYEES RETIREMENT ASSOCIATION									
99612 CHECK DATE: 04/11/2022		04/08/2022	041122	3208	103,327.87	04/11/2022	DIR	PD	040822 Payroll - PERA Con
					103,327.87				
12 INVOICES					312,661.41				

** END OF REPORT - Generated by Michelle Robbin **

Biweekly Report
April 18, 2022
By
Matt Podhradsky

UPCOMING COUNCIL MEETING SCHEDULE

Below is a list of the upcoming Council Meetings and Work Sessions planned over the next month:

April 18th: While we had originally planned to have a Work Session prior to the meeting on Monday to discuss our City Facilities Plan, we are postponing that until the May 2nd meeting both because Staff needs additional time to work with the architect to incorporate initial feedback into the plans and because the Council meeting itself on Monday night is expected to be longer with several Planning items on the docket. The regular meeting will start at 7 pm.

May 2nd: As mentioned above, we do plan on having the Work Session to discuss the city Facility Plan presentation on this evening. We will be starting the Work Session at 5:30 pm. We will have a very short Council meeting just to approve Bills and a couple of Consent Items that night, and then can use any additional time we need after this short meeting to finish any discussion on the Facilities Plan that we still may need to finish. It should be noted that May 2nd is Council Member Hubbard's 40th Birthday party, so she is inviting people over to Cy's following the meeting for refreshments if anybody is interested. We will be posting this on the agenda to make sure that the public is aware and we do not violate any open meeting law regulations if Council members are able to attend.

If you have any questions about these two meetings or are unable to attend, please just let me or Elise know.

BUILDING OPEN HOUSES

As part of the process for developing the plans for the General Fund facilities, the intention is to hold community open houses. The purpose of these open houses are to give residents the opportunity to see the facilities and to show the concept plans about how we intend to address the issues that exist at each. Originally we had talked about having these open houses on the 21st and 23rd or April. However, given the additional time we needed to work on the Concepts before we were ready to bring them back to the Council for our Work Session we are planning on having these open houses on Thursday May 19th (evening) and Saturday May 21st (Morning). Assuming everyone is comfortable with moving forward with these Open Houses after our May 2nd Work Session we will be getting out advertising immediately after that to make sure the public is aware of these opportunities.

FIRE CHIEF

As you are aware, over the past few weeks, we have been going through the interview process for our next Fire Chief. We did conclude this process on April 5th and 6th with the three finalist candidates being able to interview in front of the entire Fire Department membership as well as

two Council members. Following those interviews, we were able to spend time debriefing on these interviews to provide me with input and insight to consider when deciding who to offer the position to. We had three very good candidates to interview as part of this final part of the process.

I am pleased to announce that I did offer the position to Stephen Kraus, and he has accepted the position. Stephen has been on the Chaska Fire Department for just about 15 years as a Paid on Call Firefighter, with the last 11 years serving in an Assistant Chief role. Stephen has been the CEO of his families business (Ladybug Childcare) for most of the past two decades growing the business from one location in Chaska to three locations including Waconia and Shakoppee. With Stephen taking this position, he will be leaving his role at Ladybug in May, with his start date set for June 1st. I am very excited to have Stephen join our team as I feel he will provide great leadership to the department, and brings a passion for both Chaska Fire and the Chaska Community. If you see him around, please welcome to our team. He will be a great addition! If you have any questions, please let me know.

CHASKA TOWN COURSE TO OPEN

While the weather has made this later than we would normally like to see, the Chaska Town Course will be opening up for the season this upcoming Tuesday, April 19th. While we have gone through entire months of April in the past without having a round play, this is about a week to a week and a half later than we would typically open. New merchandise is also arriving in the Clubhouse for the season, and Oak 19 will be open for quick service (cold sandwiches, hot dogs, chips, candy, etc...) until the weather gets more predictable in mid-May when they will fully open up for the season. We encourage everyone to take advantage of the pending warm weather coming up and get out to enjoy the course-it weathered the winter season very well!

UPCOMING EVENTS

Below are some of the upcoming city and community sponsored events happening throughout the next few months.

Water Main Flushing

Water main flushing will begin the week of April 18. The entire process is expected to take between three and four weeks. More detailed information will be posted on the city's website and shared shortly.

Christmas In May

This year's Christmas In May event will take place on Saturday, May 7 beginning at 7:00 a.m. The homes to be assisted during this year's event have been selected, so all that is needed now are volunteers! If you, friends or family, or other groups you know of are interested in volunteering, please go to the Christmas in May website to sign up. Also, if you know of anyone that may be interested in being a runner for this year's event, please let me know as we will need additional runners for this year's event and the specific types of projects we are doing this year.

Taste Of Chaska

The Taste of Chaska, put on by the SouthWest Metro Chamber of Commerce, is back again on Wednesday, May 11 from 5:00-9:00 p.m. in City Square Park. The event is open to the public and will feature businesses throughout the community and also include live music.

City and Jonathan Clean Up

The annual City and Jonathan Association Spring Clean Up day is Saturday, May 7. In the Jonathan Association, yard waste, leaves, garden waste and small brush can be left at the curb by 8 a.m. for pick up. More information about acceptable items and can be found on their website. For all other City residents, Athletic Park's parking lot will once again be the location for dropping off yard/tree waste. Chaska residents will be free to drop off their loads from 8 am-2pm on that day.

Finally, an additional event the Chaska Rotary will have at Athletic Park this year is a paper shredding fundraiser event. From 2-4 pm in Athletic Park's parking lot, the Rotary will have a shredding truck available for people to bring their documents they want shredded. There is no cost to the event, but the Rotary is going to be accepting donations for this event to support other programs they put on in the community.